Feasibility Four Ways[1]

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1. Introduction

Interest in the idea of feasibility, its meaning and role within political theory has developed recently in part in the context of the discussion of the relationship between ideal theory, non-ideal theory and political realism.[2] In this context there have been several recent attempts to provide an analysis of feasibility typically aimed at producing a single defining statement that captures the essence of the idea of feasibility,[3] but this brief paper takes the rather different line of being primarily concerned with noting the complexity of the structure of the idea of feasibility - arguing that there are several inter-related but importantly distinct aspects of feasibility at stake in the realm of political theory and, in particular, presenting an account of four such aspects of feasibility and their inter-relations. The four aspects of feasibility outlined here are labelled: resource feasibility, value feasibility, institutional feasibility and epistemic feasibility respectively.

[1] Paper prepared for a conference on Feasibility and Desirability, Manchester, April 2014.
[2] For recent discussions see, for example, Miller 2008, Galston 2010, Hamlin and Stemplowska 2012, Philp 2010, Robeyns 2008, Stemplowska 2008, Simmons 2010, Stemplowska and Swift 2012
[3] See, for example Brennan and Pettit 2005, Brennan 2013, Cowen 2007, Gilabert 2011, Gilabert and Lawford Smith 2012, Lawford-Smith 2013, Wiens Forthcoming.

Each of these may be understood in terms of the analytic apparatus deriving from standard economic approaches which also serves to identify some of the inter-relations among the three ideas. There are also clear links from these identified aspects of feasibility to some of the particular analyses of the content of the idea of feasibility in the recent literature, and I will point out some of these connections as we proceed. While the major part of this paper will be taken up with outlining these four aspects of feasibility, I will end with a brief discussion of a fifth usage of the term feasibility in a political context – one which derives more from everyday speech and will be approached largely through the idea of the politically infeasible.

Before sketching the four aspects of feasibility, I need to make a few general preparatory remarks. First, I want to be very clear that I do not propose these four aspects of feasibility as identifying different, still less competing, concepts of feasibility. By using the terminology of 'aspects' I signal the intention to identify these four aspects as constitutive parts of the larger concept of feasibility. The idea of feasibility encompasses all of the identified aspects and so we might say that resource, value, institutional and epistemic considerations all play a part in our overall conception of feasibility. Some authors write that feasibility recognizes all relevant 'facts' about the world, and in doing so must acknowledge all facts. Relative to this holistic approach, I also want to say that identifying the four aspects or elements of the larger idea of feasibility is valuable both because it guards us against uses of the idea of feasibility that focus on just one or two of these aspects at the expense of the others, and because each of the aspects raises rather different questions.

Second, since I have already mentioned the connection between issues of feasibility and the ideal/non-ideal distinction, I should be clear from the outset that the characterisations of resource, value and institutional feasibility to be outlined here are intended to be essentially orthogonal to the ideal/non-ideal distinction (or the extent of departure from the ideal, if we conceive of the ideal and non-ideal identifying a continuum, rather than a categorical distinction). So, for example, the idea of resource feasibility may be employed in either ideal or non-ideal settings (or any point on the continuum between these extremes). As we will see, the link between the epistemic aspect of feasibility and the ideal / non-ideal debate is more direct.

Third, I should also be clear about the domain to which these forms of feasibility apply. Ideas of feasibility may be taken to apply to (at least) any one of: actions, particular events, time-slice statements of the state of the world, or complete intertemporal states of the world. That is we might ask whether a particular action is or is not feasible once we specify in at least some detail the context in which the question, and the action, is to be set; or whether a particular event or outcome is feasible regardless of the specific actions which may bring it about, or what other events or outcomes may also arise; or whether a full description of the world at a given moment in time is feasible regardless of the past or future history of that world; or whether a complete account of the history of the world is feasible. Doubtless, there are other possibilities. Of course, the feasibility of a particular action may well depend upon the particular state of the world in which that action is set, or on which other actions are to be taken within that state. It may be feasible for me to take action A in the particular state of the world in which I find myself at the moment, but infeasible for me to take action A in other states or at other times. Equally, while it may be feasible for me to take action A and equally feasible for me to take action B, it may be infeasible for me to take both action A and action B, so that the composite action (A and B) is infeasible. In everyday usage, and some academic debate, we tend to slip between these possible domains of the idea of feasibility and this may not be problematic in at least many cases. It certainly makes sense to ask whether a particular state of the world is feasible or not and also to ask whether a particular action is feasible or not, and it is not always obvious how these two inquiries might be related. But again, I will suggest that the distinctions between resource, value, institutional and epistemic feasibility are largely independent of the question of domain, so that, for example, the idea of resource feasibility may be applied in any of the domains identified. For presentational purposes in what follows I will speak mostly of the feasibility of 'states', and occasionally make points that require further specification, but generally I leave it to the reader to interpret these states as narrowly or as broadly as might be wished.

Fourth, as already mentioned, feasibility may be analysed either in terms of the categorical distinction between the feasible and the infeasible or in terms of continuous degrees of feasibility. I interpret the latter approach as encompassing the former in the sense that we may maintain the idea of degrees of feasibility without dispensing with the limiting case of absolute infeasibility, and so in what follows I will adopt the position of accepting and attempting to explain the idea of degrees of feasibility, while also paying attention to the polar case of absolute infeasibility.

Finally, I want to stress that much of what follows derives straightforwardly from basic ideas well established in the social science literature – I claim no major novelty. I have already mentioned a link with standard economic analysis, and this link will become clear as we proceed, but at the most fundamental level there are just four basic working parts to the discussion - the ideas of opportunity cost, path dependence, imperfect information and uncertainty – each of which has been extensively treated in the literature and may be seen as being among the key ideas that identify the economic approach. The idea of opportunity cost is simply that, in general, each action or state rules out some other actions or states, and that the opportunity cost of some action or state A is to be seen in terms of the actions or states forgone. More specifically, the economic definition of opportunity cost of an action or state is simply the loss of the most highly valued state or action forgone.[4]

The idea of path dependence is a dynamic or intertemporal version of the same basic point. The basic idea of path dependence may be expressed as the proposition that the feasibility of a particular action or state S at time t depends on the prior history of actions/states in such a way that S may be feasible given some historic paths and infeasible given other paths.[5]

The ideas of imperfect information and uncertainty are clearly inter-related at a deep level, but I want to maintain something of a distinction between them in that I will use the term incomplete information to relate primarily to situations in which particular information is absent, while I will use the term uncertainty in the context of causal relationships between action and outcomes. This, for example, if I am ignorant of some scientific truth I am operating in a situation of incomplete information, while if I face a decision where, on my current beliefs about the world, the outcomes are only stochastically related to my actions, I am operating under uncertainty. Of course, it may be that the uncertainty derives from the fact that I have incomplete information, but there might also be other ways in which uncertainty might arise, and not all situations involving incomplete information necessarily involve uncertainty.

With these preliminary points in hand, I now turn to introducing four ideas of feasibility in turn, starting with the most basic idea relating to resources.

[4] See, for example, Buchanan 1987.
[5] See, for example, Page 2006, David 2007.

2. Resource Feasibility

Perhaps the intuitively clearest notion of feasibility relates to the idea that any state of the world makes demands on underlying resources and that only states of the world where these demands are in some sense feasible can themselves be declared feasible. At one level, we might consider this apparently simple idea of resource feasibility as deriving from the true laws of science, whatever they may be.[6] If the world is characterised by fixed quantities of certain basic resources (such as chemical elements) and fixed physical laws concerning how these resources may be transformed into each other or into more complex items, then these basic facts constrain the set of resource feasible states of the world. At another level, we might consider the idea of resource feasibility relative to some particular state of technology. I will return to this issue after laying out the basic idea in the context of the true laws of science.

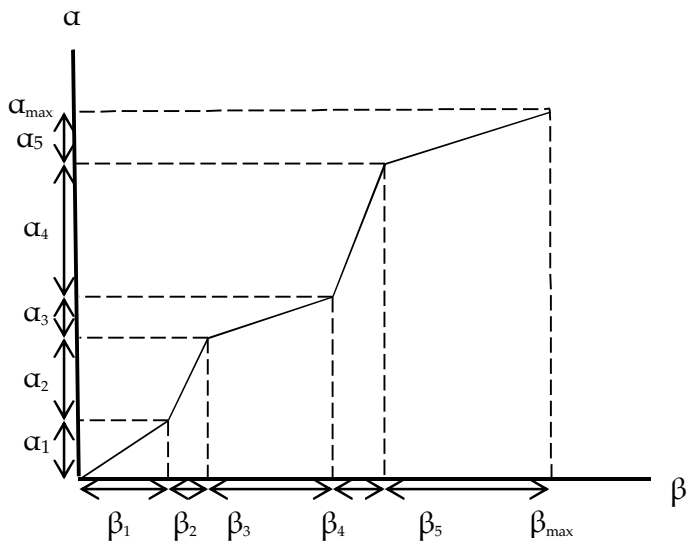
It might seem that we need to be clear about what constitutes an underlying resource, and what the true laws of science are in order to move from the basic idea of resource feasibility to any more detailed understanding, but for present purposes I can finesse such issues in order to focus on the logic of the idea of resource feasibility, rather than its specific content. So, imagine, for the sake of simplification only, that there are just two fundamental resources α and β, and that they are initially available in the quantities α_{max} and β_{max}. Further imagine that we may transform these basic resources into a wide variety of different things via different production techniques. The situation may be illustrated as in Figure 1.[7] Starting at the origin, we might use a particular amount of α, say α_1, together with a particular amount of β, say β_1, to produce a particular quantity of some particular thing – call the thing X^1 and the particular quantity X^1_1. Similarly, we might use some further quantities of α and β, say α_2 and β_2 to produce a particular quantity of a second particular thing – call the thing X^2 and the particular quantity X^2_1. And we might continue in this way, producing a variety of things, until we have exhausted the available supply of α and β. As a result we will have produced a set of things $(X^1_1, X^2_1, \ldots X^N_1)$ which may be said to be resource feasible in the sense that they are jointly consistent with the underlying resource endowments. There will, of course, be

[6] So that we are embedding our discussion of feasible states of the world within a sub-set of all possible worlds: the sub-set in which a particular set of physical and scientific laws are true.

[7] The simplification to the case of just two basic resources is purely to allow of such simple illustrations. Generalisation to arbitrary numbers of basic resources presents no major problems.

many such sets, each of which may be depicted as a path from the origin to the point (α_{max}, β_{max}) in Figure 1.[8]

Figure 1 – Resource feasible production plans

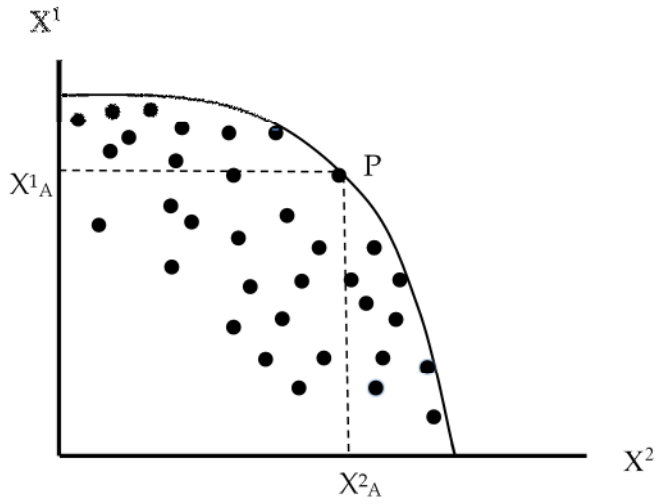


Again for the sake of presentational simplicity, consider the case in which there are just two things which we can produce X^1 and X^2, but that there are many different resource feasible ways of producing them in various quantities, each of which may be depicted as a path in the equivalent of Figure 1. Each such resource feasible production plan will indicate a particular combination of quantities of X^1 and X^2 and these combinations can be plotted on a figure such as Figure 2, which therefore shows as a series of points all the resource feasible combinations of X^1 and X^2 given the underlying stocks of resources α and β and all available production technologies. The line constructed as the outer envelope or convex hull of all the resource feasible points and shown in Figure 2 is then the equivalent of the standard economist's production possibility frontier representing the outer limits of resource feasible production or, as economists would say, the set of efficient production plans. Productive efficiency, in this sense, simply means that each point on the production possibility frontier is such that no more of X^1 could be produced

[8] Some of these production plans will exhaust one of the underlying resources before the other, so that the final element of the plan will simply be to retain the remaining quantity of the relatively abundant resource in its original form. Such plans would be shown on Figure 1 as having horizontal or vertical segments immediately prior to the point (α_{max}, β_{max}).

without giving up at least some X^2, and vice versa, whereas for each resource feasible point that lies strictly within the frontier, more of either X^1 or X^2 (or both) could be produced without such sacrifice.

Figure 2 – Resource feasible production possibility frontier



I have worked through the logic of the derivation of the production possibility frontier in some detail, so as to show exactly how it corresponds to the idea of resource feasibility. The production possibility frontier both provides the categorical distinction between combinations of things that are resource feasible and those that are resource infeasible and provides an indicator of the degree of resource feasibility by indicting the degree of spare capacity implied by any production plan that lies strictly within the production possibility frontier.

It should be clear that this most basic formulation of resource feasibility as a generalization of the idea of the production possibility frontier may be developed in either a static or a dynamic mode: in the static mode we are concerned with the resource feasible options at a moment in time with any trade-offs along the frontier representing the opportunity costs inherent in the limited nature of resources, in the dynamic mode we are concerned with resource feasible paths through time taking account of any interdependencies that there may be between resource use in one time period and

resource use in other period (for example, if certain productive processes are irreversible, or reversible only at significant resource cost).

We may now return to the question of viewing resource feasibility in terms of particular technological states rather than in terms of the true laws of science. The basic point here is that the idea of resource feasibility subject only to the true laws of science may be thought of as a form of ideal theory and we make a move into the non-ideal realm when we impose further restrictions on the set of technologies. Thus if we ask whether sending a man to the moon is resource feasible subject only to the true laws of science we must say yes,[9] as we must if we consider resource feasibility subject to the technology actually available from the late twentieth century onwards, but we may also conclude that sending a man to the moon was resource infeasible in, say, the nineteenth century, given the then state of technology. Clearly the issue here is largely an epistemic one: what technologies are known or accessible at any given point in time, and how does technical progress itself depend upon particular actions chosen. I shall return to the broader epistemic issues in section 5 below.

This basic idea of resource feasibility links directly to the discussion of feasibility by Wiens (Forthcoming) who emphasises the generalization of the production possibility frontier. Wiens goes on to argue that this conception of feasibility supports the argument against the idea ideal theory place a significant role in generating action-guiding recommendations by setting the appropriate target for policy (Wiens refers to this as the 'target view' of the relationship between ideal and non-ideal theory). I will not pursue that line of discussion here but will merely comment that this simple idea of resource feasibility is, in principle, entirely separable from normative theorising. By this I mean no more than the claim that questions of resources feasibility, whether subject only to the ideal considerations provided by the true laws of science or to the more restrictive considerations of the technology available at a particular time and whether conceived in static or dynamic terms, are logically separate from all normative considerations. We do not need to specify any particular normative principles, or any particular criteria by which those principles might be brought to bear on the evaluation of actions or states of the world, in order to address and potentially answer questions of resource feasibility.

[9] Note that I am here concerned with the feasibility of a specific action, rather than a state of the world, but this is no more than an illustrative example, and nothing hangs on this usage.

And our answers to those questions will stand whatever normative principles and criteria we might develop.

3. Value Feasibility

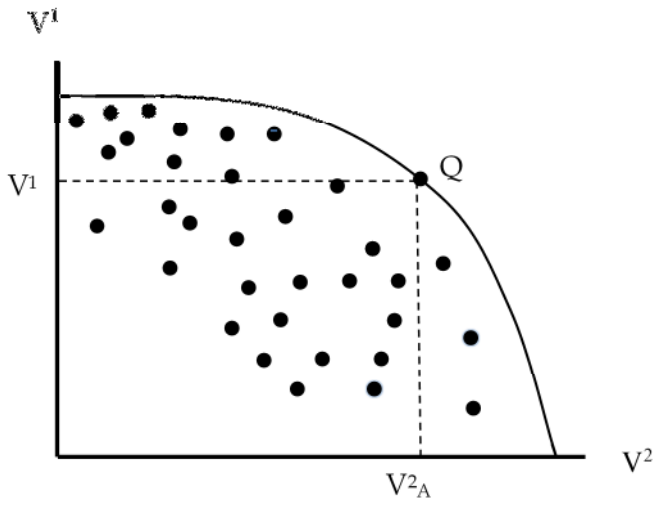
While the issue of resource feasibility is what is at stake in at least some contexts, at least some questions of feasibility that are important in political debate relate to the feasibility of achieving or realising particular values or combinations of values, rather than in achieving particular levels or patterns of production or resource use. We might ask, for example, is a fully egalitarian outcome feasible, or if such an egalitarian outcome is consistent with an acceptable degree of personal freedom? Such questions are not directly addressed by the idea of resource feasibility. Answering such questions will, of course, depend on much finer specifications of what we mean by 'a fully egalitarian outcome' and 'an acceptable degree of personal freedom', but even once we have done the conceptual work required to provide such detailed specifications,[10] it is clear that resource feasibility is only a part of what is required, so that the idea of value feasibility must build on and encompass the idea of resource feasibility.

Starting from the resource feasible production possibility frontier of figure 2, we can select any feasible point such as P which involves the production of the particular combination of X^1_A and X^2_A and consider the various ways in which this pattern of outputs might be distributed and utilized. Notice that we are, for the moment, assuming that there are no necessary connections between production, distribution and utilization. Each pattern of distribution and utilization will provide a full specification of the uses to which all resources and produced items are put. We may now take our more philosophical work on the relevant concepts of value and apply them, so as to yield a full evaluation of each pattern. By 'full evaluation', I do not mean an all-things-considered valuation, but rather an evaluation of the fully described state of the world in terms of each separately identified and conceptualised value. This we might achieve evaluations in terms of each of several notions of equality, evaluations in terms of each of several notions of freedom, evaluations in terms of several notions of well-being, and so on. In this way the resource feasible production plan summarised in the point P could give rise to any of a large

[10] This conceptual work is a major part of what Hamlin and Stemplowska 2012 refer to as 'the theory of ideals' rather than ideal theory.

number of differently valued states of the world, some more equal than others, some more free than others, some generating more well-being than others.

Figure 3 Value feasible possibility frontier



If, once again, we simplify the situation to consider just two dimensions - in this case just two values (which I will denote V^1 and V^2) - we may construct a value feasibility frontier in a manner that is directly comparable to the method already used to construct figure 2. As already indicated, each feasible point in figure 2 (such as P) will generate a variety of possible states of the world each of which can be valued in terms of both V^1 and V^2. Each such state of the world can therefore be plotted on a figure such a figure 3, which shows the plot of all such points (deriving from all feasible points in figure 2, not just P) and also shows the outer envelope or convex hull of the set of such points. Of course, the shape of the value possibility frontier so constructed is not necessarily as shown, and will depend upon the specification of the relevant values as well as the details of resources feasible production.[11] Some values, such as many notions of equality, may be capable of being fully achieved while others values may be open-ended in the sense that one might always imagine a further increase in the relevant value, and this may affect the shape of the value possibility frontier. The existence of any trade-off between values, as indicated by a downward sloping value possibility frontier, may be appropriate in some cases and not others. And of course, in more general circumstances we will be interested in multi-

[11] A similar value possibility frontier is presented and discussed in Hamlin and Stemplowska 2012. That discussion does not analyse the connections with other aspects of feasibility.

dimensional versions of figure 3 which allow of a wider plurality of values; but the logic of the value possibility frontier seems appropriate whatever the resultant shape and dimensionality of the frontier.

We may now make a number of points about such a notion of value feasibility. First, and most obviously, unlike resource feasibility, this notion of feasibility is not separable from notions of desirability. It depends, in part, on a specification of the relevant values and an ability to evaluate states of the world (or actions) in terms of those values. In this way, the value possibility frontier combines elements of the analysis of feasibility with elements of the analysis of desirability to deliver a view of the feasibility of achieving relevant value combinations.

Second, as with the idea of resource feasibility, we may conceive of value feasibility in either static or dynamic contexts, so that the idea of value feasibility may be employed in terms of the potential opportunity costs associated with the realization of values at a moment in time, or with the path dependence of states realizing value over time.

Third, and again as with the idea of resource feasibility, we may conceive of value feasibility in more or less ideal terms. In the case of value feasibility, the non-ideal character may derive in part from the underlying notion of resource feasibility, so that limiting the underlying analysis to a particular specification of technology will imply a non-ideal notion of value feasibility; and in part from the underlying specification of values and the technology of evaluation, so that moral uncertainty over the specification of particular values, or their operationalization in the evaluation of states of the world will also imply a non-ideal notion of value feasibility. Again, I will return to the epistemic aspects of the shift from the ideal to the non-ideal in more detail in section 5 below.

4. Institutional Feasibility

In their different ways the ideas of resource feasibility and value feasibility both address the question of what is possible in the sense that they identify all states of the world that are consistent with underlying resources and, in the case of value feasibility, the identification of relevant values. Identifying a state of the world as resource feasible or value feasible provides no clear or direct insight into how that state might be realised. We might think of the ideas of resource feasibility and value feasibility as simply defining

what we mean by resources, production techniques and values (in either an ideal setting or in some specific non-ideal setting) and recognizing that, even in an ideal world, we live in a condition of generalized scarcity.

The idea of institutional feasibility, then, is to ask the further question of which of the resource and value feasible states of the world might be realised. Brennan and Buchanan emphasise the idea of institutional feasibility:

> "But only those social outcomes are feasible that can be generated as equilibria under some institutional arrangement. For this reason it is misleading to examine the set of conceivable social outcomes and select as ideal what best fits some independent and external normative criteria. Institutional arrangements constrain the set of feasible outcomes no less significantly than the basic physical constraints ('endowments') that delimit the range of desired end products." (Brennan and Buchanan, 1985, p16)

That is to say, in order to be institutionally feasible a state of the world has to be capable of being implemented by individuals acting within a set of institutional arrangements that is itself feasible. Immediately we have two elements – one concerned with institutional design and the other concerned with human motivations. The point to stress here is that these two elements are at least somewhat interconnected both in that the institutions themselves must emerge from and operate with the prevailing human motivations and in that the specific pattern of motivations that are engaged in any particular state of the world may depend upon the institutional structures present in that state. But what exactly might we mean by a set of feasible institutional arrangements, and how does this the requirement of institutional feasibility constrain the set of states of the world that can be implemented?

One way of thinking about these issues refers back to the idea of technology. Recall that in the discussion of resource feasibility it is necessary to take a view on the production technologies available for transforming basic resources into potentially valuable things. By analogy, we might think of institutional arrangements and the human motivations that operate within them as a form of social technology. The basic point here is that in order to establish institutional feasibility we have to take several additional steps: first we must specify a particular institutional arrangement that we believe to be feasible in either the ideal or relevantly non-ideal sense, then we have to analyse the operating characteristics of that institutional arrangements under the relevant human motivations in order to come

to a view as to its likely implications for the states of the world to be realized under that institutional arrangement. In the first step we need to focus on what makes an institutional and motivational arrangement feasible in itself (in either the ideal or the non-ideal context), in the second step we will need to employ both the idea of resource feasibility – to ensure that the institutional arrangement in question is operating within the relevant physical and technological constraints – and the idea of value feasibility – to facilitate the comparative evaluation of alternative institutional arrangements given the appropriate specification of values.

In this way, the idea of institutional feasibility may be thought of as requiring theorems on the characteristics of alternative institutional and motivational arrangements which build on the definitions provided by the notions of resource and value feasibility. An example is provided in the standard economics literature by the fundamental welfare theorems. Here the institution under consideration is the market and the motivational structure under consideration is largely rational individualism of the sort typically referred to as Homo Economicus, and I will focus on the ideal theory case of a complete set of perfectly competitive markets and perfectly rational individuals. The structure of the fundamental welfare theorems is then to show that, given some underlying specification of resource feasibility that identifies the availability of both resources and production technologies, and given a set of values that are broadly individualist and utilitarian is construction, the operation of the ideal set of competitive markets by a population of Homo Economicus will tend to generate a state of the world that lies on both the resource feasibility frontier and the value feasibility frontier, and that this is so regardless of the initial allocation of property rights.[12] A second example might be provided from the political economy literature with the 'median voter theorem' providing an analysis of the properties of idealised elections based on simple majority voting.[13]

The idea of institutional feasibility therefore focusses attention to the operating characteristics of alternative institutional and motivational arrangements and the behaviour that might be expected to be realised under those arrangements, or, to put the same point in other words, focusses attention of the basic idea of the motivations and

[12] The structure of the argument is laid out in largely diagrammatic terms in Bator 1957 and in almost every welfare economics textbook published in the last 60 years, see, for example, Graaff 1971, Boadway and Bruce 1984, Myles 1995.
[13] Originating in Downs 1957, for overviews and discussion see, for example, Enelow and Hinich 1984, Merrill and Grofman 1999, Mueller 2003.

behaviour of individuals and how they might be shaped and conditioned under different institutions.

As with the resource and value aspects of feasibility, institutional feasibility may be conceived in more or less ideal terms. The degree of idealisation in this case relating to the specification of the institutional structure in question and the motivation and behaviour of agents within that institutional structure. In this sense, the fundamental welfare theorem relating to a full set of perfectly competitive markets populated by fully rational individuals may be considered to lie at the ideal end of the spectrum, while the various arguments relating to the impact of recognizing market imperfections such as externalities or monopoly power, or the impact of recognizing bounded rationality or learning might be said to provide movements in the direction of the non-ideal. Again, epistemic aspects of the shift from the ideal to the non-ideal will be discussed in the next section.

Since institutional feasibility, as we have sketched it, involves the demonstration that a particular state that is either resource feasible or value feasible may be implemented via some particular set of institutional and motivational arrangements we can see that institutional feasibility builds on the ideas of resource and value feasibility. To the extent that institutional feasibility is concerned with the implementation of value feasible states, it is also clear that the notion of institutional feasibility is not entirely independent of normative considerations, since they are a necessary input into the idea of value feasibility.

To this point we have proceeded as if the flow from resource to value to institutional feasibility is uni-directional. But it should be clear that there are potential feedbacks both in logic and over time. It may be, for example that the institutional arrangements directly influence the state of technology and so affect resource and therefore value feasibility. In fact we should think about these three aspects of feasibility as being organised as a set of simultaneous relations – with each depending on the others.

5. Epistemic Feasibility

As we have already seen, epistemic issues arise in relation to the ideas of resource, value and institutional feasibility. In the case of resource feasibility, the specification of what is known about the set of underlying resources and the production techniques that are

available is key to locating any specific formulation of resource feasibility on the spectrum from the ideal (with full knowledge of resource endowments and the true laws of science) to the non-ideal (with some specified state of knowledge). In the case of value feasibility we add in the further element of potential epistemic limitations in relation to values themselves. And in the case of institutional feasibility we add epistemic limitation on our knowledge of human motivations and behavior and institutions and their workings. With some oversimplification, we might regard resource feasibility to be the realm of science, value feasibility the realm of philosophy and institutional feasibility the realm of social science. It might seem, then, that while we can surely distinguish between these three aspects of feasibility, it is the idea of epistemic feasibility and specifically the idea of incomplete information that largely determines the position of any particular analysis of feasibility on the ideal/non-ideal spectrum, so that, to put the claim starkly, it is incomplete information (in relation to resources, production techniques, values and institutions) that renders a situation non-ideal.

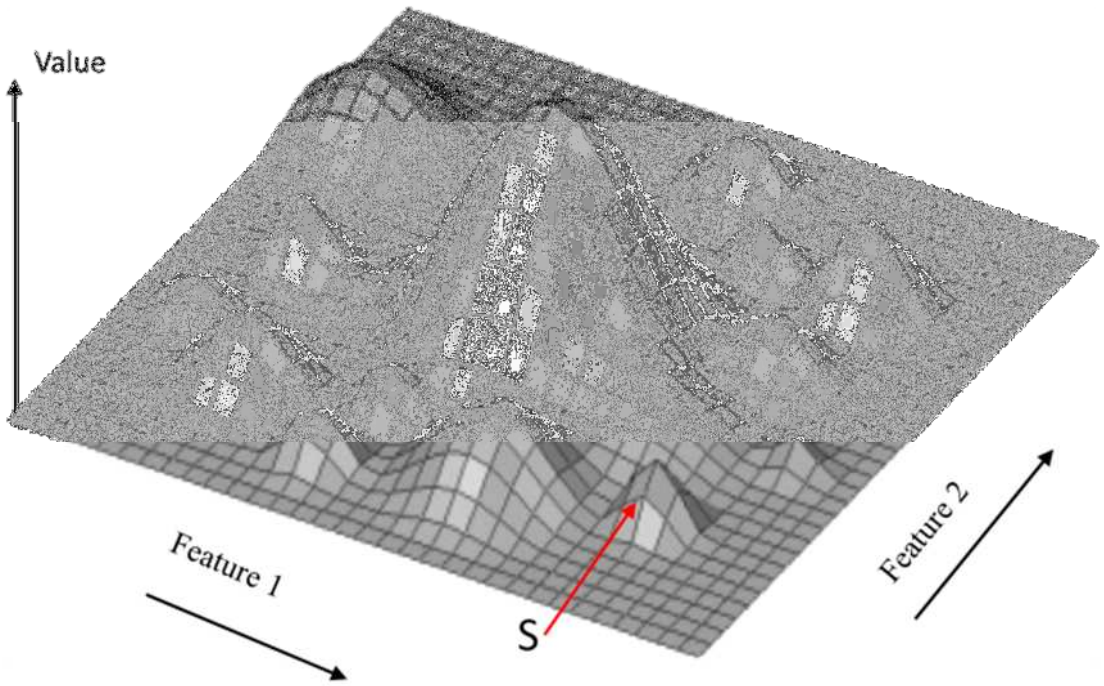
Modelling incomplete information and its implications is a major challenge, and I will simply outline one possible approach that is consistent with the partial separation of incomplete information and uncertainty.[14] Consider Figure 4 which presents a simplified three dimensional sketch of a complex value function. The basic idea is that society may be analysed into a large number of 'features' which combine and interact to generate value. For the sake of the discussion here we may think either of a particular value, or of all-things-considered value, without changing the basic point I wish to make. Varying any feature (or set of features) will cause value to vary and the overall relationship between the features and value is potentially complex in the sense that the value function may not be smooth, monotonic or single peaked. As usual, for ease of presentation, Figure 4 depicts the case in which there are just two relevant features of society, with the value realised by any combination of those two features shown as the 'height' or third dimension of the figure, so that we have a relatively complex value surface. In the surface as drawn there are many local optima, and a clear global optimum.

Now, this figure might be understood in ideal terms. That is, the 'features' collectively exhaust all of the possible information relating to resources, production techniques, motivations and institutions that is consistent with the true laws of science (and social

[14] This sketch owes much to conversations with Jerry Gaus. See Gaus 2013, Gaus 2014 and references therein.

science), and the definition and measurement of value is also complete and accurate. Information is complete and perfect and there is no uncertainty. Under these circumstances, it would be a relatively simple matter to plot a course from any point on the surface that might represent the inherited status quo to the global optimum. That is, it would be conceptually straightforward to identify the social reforms – interpreted as changes in the underlying 'features' of society – that would, if implemented, bring us to the ideal.[15]

Figure 4 Complex Value Surface



However, we may now introduce the idea of incomplete information. One way of doing this is to suggest that our knowledge of society is limited by our current position as

[15] Ideas of feasibility are sometimes discussed in the context of the economic analysis of the general theory of the second best (Lipsey and Lancaster 1956). While this theory is important, its implications are limited. In the context of Figure 4, for example, where the first best or global optimum is clearly identified with a particular combination of Feature 1 (F1) and Feature 2 (F2), all that the second best theorem tells us is that if F1 becomes unavailable (infeasible) then in general it will no longer be optimal to insist on F2.

indicated by the 'features' that identify the status quo, So that we can only 'know' what lies within a certain range of our present position. For example let the point S in Figure 4 represent the status quo, then if the range of our knowledge is tightly circumscribed we might merely perceive the slope of the surface at that point and so move to 'increase' Feature 2 as a means of locally improving value. If our range of knowledge is slightly wider we might perceive a position of greater value nearby and move to adjust features accordingly. But if our range of knowledge were wider still we might conclude that a higher value could be attained by significantly 'reducing' Feature 1 even though, initially, any reduction in Feature 1 would yield a decline in value. The basic point is clear enough, the extent of our information will often dictate both what appears to be the best direction of reform and the best target destination. And this is true without any appeal to uncertainty in the sense of a probabilistic relationship between actions and outcomes. In this simple model everything within the range of knowledge is known with certainty, so that all reforms that move from one point to another within the known range have exactly the anticipated effect – there is no risk associated with reform.

Of course, if, as a matter of second order knowledge, we understand that we have incomplete information and that moving around the surface can reveal new information, it becomes possible to consider a strategy of exploration: that is, a strategy of varying the features of society in order to discover more information about the value surface that we are on, rather than directly to achieve greater value. This then introduces the idea of uncertainty, if we adopt reforms that takes us beyond our known horizon, so as to expand our horizon, we have no obvious basis for predicting the likely outcome in terms of the value that might be associated with the reformed set of features, or what we might learn about the new region of the value surface.[16]

When I say that we have no obvious basis for predicting the likely outcomes of reforms that take us beyond our knowledge horizon, I do not mean to imply that we are incapable of making some prediction – we might assume any number of different things to provide us with some basis for forming expectations. The point is just that such predictions are necessarily uncertain. Optimists will suggest that such 'experiments in living' (to use Mill's phrase) are likely to be progressive in the sense that they reveal ways of improving

[16] Note that I am assuming that the definition and measurement of value itself are constant throughout. If moving around the surface can cause us to re-define value, and therefore re-evaluate all potential points in the feature landscape, so that morality is endogenous with respect to features the model becomes more complex and may become chaotic.

social arrangements with little downside risk. Pessimists are more likely to invoke arguments of unanticipated consequences and the 'precautionary principle'.[17]

Geoffrey Brennan and I have argued elsewhere that we might understand one form of conservatism by reference to the nature and shape of the value function.[18] The basic idea is that if the relevant value function is convex, this will imply a status quo bias when faced with uncertain choices in relation to reform. That point carries over, with some modification, to the more complex environment relevant here. In the multi-dimensional setting of many features, it will of course be possible for the value surface to be convex in some dimensions and concave in others, but the point remains, that the shape of the value surface – both locally, where it may be known and more globally where it may only be assumed – will systematically influence the attitude to uncertainty in matters of reform, and so may determine the extent of social experimentation and the prospects for global rather than local optimisation.

6. Conclusion

I have done no more than sketch the outlines of the four identified aspects of feasibility, I hope that the nature of the discussion of the inter-relations among them has underlined the point I made at the outset that these are not intended as alternative conceptualizations of feasibility; each of the four identified aspects contributes to the whole. But I also hope that the identification of these four aspects of feasibility provides a more rounded understanding of the complexity of the idea of feasibility, not least by pointing out that no single aspect provides a good basis for a general idea of feasibility. Feasibility may be all about the recognition of the role of 'facts', but facts are of various kinds and play a variety of roles.

In recognizing these four aspects of feasibility I am suggesting that statements regarding the alleged feasibility (or infeasibility) of any particular action, outcome or state of the world need to be relatively complex and nuanced statements, with potential clauses relating to at least each identified aspect of feasibility. Thus state of the world X might be resource feasible on the basis of current knowledge, while posing a challenge to

[17] For a critical discussion of the precautionary principle see Sunstein 2005.
[18] See Brennan and Hamlin 2004, 2006, 2013.

institutional feasibility if we have no clear understanding of a workable institutional structure that will realise X with high probability. Or again, the realization of some combination of goals may raise quite separate issues of value feasibility and institutional feasibility. Allowing of this richer texture of the idea of feasibility seems to me an important part of the more general idea of taking feasibility seriously.

Since most of this paper has been devoted to distinguishing between aspects of feasibility, it is incumbent upon me to end with a brief discussion of another usage of the language of political feasibility and infeasibility – one that may be found in our everyday speech, but one which, I will suggest, is best seen as a very specific application of the idea of institutional feasibility and the underlying notion of path dependence.[19]

We commonly hear that, in some particular country torn by civil war, peace is 'politically infeasible', or, less dramatically, that compromise between political parties on some political issue in an advanced democracy such as the US or the UK is similarly 'politically infeasible'. I take it that what is normally meant by such statements is that the history of the situation and of the players in the debate is such that the various parties have adopted and committed themselves to entrenched positions which do not allow of a resolution of the issue at hand, even though such a resolution seems available from an external perspective. The situation here, in short, is politics is the problem, rather than the solution.

To give a slightly more detailed account, we might suggest that the particular path taken by events has led, through a series of steps which were not necessarily intended to have this effect, to an impasse where the institutional structures that characterise politics are unable to perform the role that is generally expected of them. Of course, other accounts are possible – including attributing malign intent to some or all of the parties, or appealing to some basic aspect of human nature, but I want to suggest that there is something about the nature of politics, and particularly democratic or populist politics, that makes such impasses a predictable consequence of a non-ideal political system.

The suggestion, in outline, is simply that politics of a democratic or populist type requires a degree of commitment: that is, governments, politicians and other political agents have to commit themselves to particular actions, policies, platforms and ideologies and their success depends in large part on their ability to deliver on their commitments. Now, in general, such a politics of commitment may work well – both in restraining the

[19] A similar point is made by Räikkä 1998.

commitments that seekers of political office might make since they will understand that failure to deliver may be very costly, and in ensuring that the political process does in general deliver on its expectations. But commitment is costly, and one of the costs of a politics of commitment is an occasional impasse. The design (or evolution) of a political system might therefore be expected to take account of the trade-off between the benefits and costs of political commitment. But even the optimal balance will typically imply some cases of political impasse where a solution that is feasible in all four of our identified senses is nevertheless infeasible in terms of the particular political institutions that are actually in place.

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