Exit and Voice

Papers from a Revisionist Public Choice Perspective

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July 2014

A thesis submitted for the degree of Doctor of Philosophy of The Australian National University

DECLARATION

With the exception of chapters 7 and 8, I declare that this thesis is entirely my own work. Chapters 7 and 8 were co-authored with Patri Friedman. The original concepts of both papers were Friedman's. I drafted the first versions of both papers, and revisions were made collaboratively.

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Acknowledgements

Abstract

This thesis by papers uses rational choice theory to consider the relative performance of individual exit and collective voice in politics, as well as the causal relationships between exit and voice as individual strategies and institutionalised means of controlling government behaviour. Following the methodological approach of Geoffrey Brennan and Alan Hamlin, the papers of this thesis are examples of 'revisionist public choice theory,' retaining the broad framework of rational choice while relaxing one or more of the standard assumptions generally made by economists. In particular, the papers of this thesis consider other-regarding preferences, non-instrumental preferences, dispositional choice, epistemic rationality, non-efficiency evaluative standards, and non-equilibrium dynamics. By taking a revisionist approach, I am able to steer a path between the excessive abstraction of much public choice theory and the insufficient rigour of much normative political theory. Jointly, the papers of this thesis contribute to broad debates over the relative value of exit and voice in political settings, with relevance to questions of democracy versus the market, centralism versus localism, and bureaucracy versus market-like modes of governance. Though I cover a range of diverse topics in this thesis, I generally argue for a strongly revisionist approach to political analysis which sees significant behavioural differences between individual and collective decisions while grounding all action in common motivational assumptions.

1. Introduction

1.1. Introduction

When an individual is dissatisfied with a good or service they consume, an organisation to which they belong, or a jurisdiction in which they reside, they have two broad strategies of seeking improvement: exit and voice. In political contexts, individuals exercise voice when they sign a petition, protest a policy, or vote in an election. Individuals exercise exit when they choose between public providers, forgo public provision of some service and seek a private-sector alternative, or leave one jurisdiction to move to another.

The contrast between exit and voice as responses to dissatisfaction is due to Hirschman (1970), though there are a number of important precursors.[1] Since the publication of Hirschman's book, a number of political scientists, public choice scholars, and political philosophers have used the distinction and refined Hirschman's model in various ways (Dowding, John, Mergoupis, & Van Vugt, 2000; Dowding & John, 2012, Chapter 2).[2] This thesis is not a critique, extension, or refinement of Hirschman's idea. Rather it unapologetically borrows exit and voice as analytic concepts and puts them to its own use. Most obviously, I completely ignore loyalty. Further, where Hirschman was primarily interested in the reciprocal relationship between exit and voice, my interests are often more comparative, though I will on occasion deal more directly with Hirschman's central argument.

The approach I take is grounded in the methodology of rational choice theory, though it is 'revisionist' in a number of respects. Conventional public choice theory generally makes a number of strong assumptions about human behaviour, and this has generated a great deal of criticism (J. Friedman, 1996; Green & Shapiro, 1994). Critics accuse rational choice theorists of making unrealistic

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[1] Buchanan's (1954a) comparison of market and democratic choice and Tiebout's (1956) model of jurisdictional exit are the most obvious examples from a rational choice perspective. While Hirschman is to my knowledge the first to investigate the casual interrelationships between exit and voice options, these earlier works made fairly explicit comparative analyses of exit and voice as individual decision making processes.

[2] According to Google Scholar, *Exit, Voice and Loyalty* has been cited 14,414 times as of July 2014. This is a popular book by any standard.

assumptions and ignoring a number of causally and normatively important factors. While I am sympathetic to such criticisms in many cases, in accepting them we need not abandon rational choice theory altogether. The development of a 'revisionist public choice theory' (G. Brennan & Hamlin, 2008) considering the non-material incentives which motivate actors, paying careful attention to the costs of decision making and the strategies used to economise on such costs, and also connecting itself more explicitly to questions in normative political theory allows us to use economic tools such as game theory and price theory without ignoring important human motivations or taking the normative agnosticism of positive theory to mean that we cannot 'as scientists' connect positive results to normative concerns.

Each chapter of this thesis is revisionist in its own way. While the assumptions of conventional public choice theory have their limits, they are often entirely adequate and analytically useful. When I relax the assumptions of conventional economics, I do so reluctantly. Models cannot and should not attempt to reflect the real world in every respect. Social theorists are not in the business of building faithful representations of external reality, but simplified descriptions which capture interesting causal mechanisms. As Dowding (2001, p. 95) says, '[w]ithout oxygen on this planet there would be no policy process, but I have never seen oxygen mentioned in an explanation of any policy outcome.' A complete and realistic model is a world. We already have one of those, and it's unclear whether adding a second will provide much in the way of analytic traction. Rational choice theory is a framework which allows for a variety of alternative assumptions, while forcing the theorist to make assumptions explicit. Stigler and Becker (1977) did not deny that people had preferences any more than scholars of the policy process deny that there is oxygen on this planet. Stigler and Becker simply thought that preferences were sufficiently homogeneous and stable that they can be safely ignored as explanatory devices in economic analysis. This is undoubtedly correct for many economic questions, and so it is with this thesis. I argue that epistemic irrationality and expressive preferences are important in many contexts, but when such concepts are not doing any analytical work, I happily ignore them.

This introductory chapter begins in section 1.2 by outlining the existing positive and normative literature on exit and voice in politics, beginning with definitional and conceptual issues and moving on to debates about the connections between exit and voice and their relative desirability as tools of individual communication and collective control. In section 1.3 I introduce the approach of revisionist public

choice theory. I first summarise the description provided by Brennan and Hamlin (2008) and suggest that this approach can be extended in a number of ways which I take to be consistent with Brennan and Hamlin's outline of revisionist public choice theory as a research programme. Finally, I briefly describe each of the central chapters of this thesis and point to the major themes connecting these papers.

1.2. Exit and voice

For Hirschman, exit and voice are potential responses to decline in the quality of a good or service consumed or the value of belonging to an organisation. However, his framework can be generalised by considering exit and voice as responses to dissatisfaction, defined broadly as perceived imperfection in the status quo or a possible future path. There are three general cases here:

1. An individual perceives decline and seeks improvement

2. An individual sees an opportunity for improvement, despite stable or improving quality overall

3. An individual perceives a threat of decline and seeks to maintain the status quo

Hirschman is interested only in case one, but exit and voice are possible responses in all three cases. Voice can be used to bolster the performance of well-performing governments or to maintain the status quo. Exit and voice as I use them are best understood as instruments of influence. It is also important to note that I am here interested in exit and voice only in the context of politics. This focus is narrower than Hirschman's but broader than, for example, Dowding and John's (2012) focus on public services.

1.2.1. Types of exit and voice

Exit and voice can occur in politics in a variety of ways, and a useful framework is provided by Dowding and John (2012).[3] They distinguish four types of exit (Dowding & John, 2012, pp. 37–43) and three types of voice (Dowding & John, 2012, pp. 43–46). Gofen (2012) adds an additional form of exit (entrepreneurial exit), and I add a final type which is not relevant to public services but is

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[3] See also Dowding et al (2000) and Dowding and John (2008).

important for broader debates in political theory (cultural exit). These types of exit and voice are summarised in tables 1.1 and 1.2 respectively and described below.

Table 1.1: Types of political exit[4]

Type of Exit	Description
Internal Exit	Leaving one public service provider for another in the same jurisdiction
Private Exit	Leaving a public provider for a private alternative
Geographical Exit	Leaving one jurisdiction for another
Tiebout Exit	Geographical exit motivated by differences in law, policy, institutions, or public services
Complete Exit	No longer consuming a service and not seeking a replacement
Entrepreneurial Exit	Leaving a public service and creating a replacement
Cultural Exit	Leaving one non-government cultural or religious community for another (whether mainstream society or another subcultural group)

Internal exit occurs when an individual leaves one public provider for another, such as when a patient chooses between alternative public hospitals or a parent chooses between alternative public schools. This type of exit is often impossible, since zoning rules or other means of rationing often prevent individual exit options. In general, internal exit options need to be designed in to public services. Such institutionalised exit options (Warren, 2011) can be seen in charter school systems (Buckley & Schneider, 2009) and various quasi-market policies (Le Grand, 2007).

Private exit occurs when an individual opts out of some public service or policy and seeks an alternative in the private sector, whether for-profit or voluntary. When parents send their children to a private school despite public sector alternatives or when companies opt for private dispute resolution over government courts, they are engaging in private exit.

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[4] This is based on Dowding and John's table 2.4 (Dowding & John, 2012, p. 38).

Geographical exit occurs when an individual, household, or firm relocates from one jurisdiction to another. In the case of people, such relocation is straightforward, but in the case of firms partial relocation is possible. Companies may operate in one jurisdiction but be incorporated in another and multinational firms may be able to partially exit the tax policies of one country by shifting assets across borders.

When geographic exit is motivated by differences in governance, it is Tiebout exit. Tiebout (1956) developed a model of local government in which individuals are able to vote with their feet for the policies they prefer by moving between governments. While Tiebout's model was highly stylised, there is evidence that household locational decisions are influenced by policy differences at the local level (Dowding, John, & Biggs, 1994), and companies seem to make locational decisions based partly on the basis of law and tax policy (Ribstein & O'Hara, 2009).

Complete exit occurs when an individual simply stops consuming a service without seeking an alternative. A consumer dissatisfied with the public health system but unable or unwilling to resort to the private sector may simply stop visiting the doctor or seeking medical treatment. While this type of exit is presumably rare, I mention it here for the sake of completeness.

Entrepreneurial exit occurs when an individual creates their own alternative to public provision. A parent dissatisfied with the school system may opt for home-schooling, a community feeling unprotected by police may form a neighbourhood watch group, or individuals worried about inflation might create a private currency. While entrepreneurial exit is, like complete exit, is presumably extremely rare, it is potentially of much more relevance, since entrepreneurial exit will sometimes create new private sector alternatives for others (Gofen, 2012).

Cultural exit occurs when an individual leaves a subnational religious or cultural group to join another such group or integrate into mainstream society. Many religious groups engage in practices at odds with the liberal values of contemporary western democracies, and there was been a great deal of debate in political theory over the permissibility or obligation of intervention in such communities. An important part of this debate rests on exit options: if exit options are sufficiently strong, many insist that other protections are unnecessary to protect individual freedom and unnecessarily restrict religious liberty. Others claim that exit options are almost never strong enough or that even with strong

exit rights there are some things a liberal state cannot abide (Barry, 2001; Kukathas, 2003; Mazie, 2005; Okin, 2002).[5]

Table 1.2: Types of political voice[6]

Type of Voice	Description
Individual voice	Individual communication aimed at securing changes in the voicer's situation
Collective voice voting	Voting in elections
Collective voice participation	Participating in non-electoral collective voice activities such as protesting a policy, signing a petition, or campaigning for a candidate.

Dowding and John do not make such a fine-grained distinction between types of voice in politics, seeing only three broad categories, and they are reasonably straightforward. Individual voice occurs when an individual asks for some specific action or complains about some specific grievance. All action is individual, of course, but individual voice is defined by its goals – to change outcomes through an individual act of voice rather than contributing to a collective effort. Examples would be calling the council to fill a pothole or writing a letter of complaint about a particular interaction with a government official. Collective voice voting occurs when an individual votes in an election, and collective voice participation is a residual category of collective voice including protest and advocacy. For the purposes of this thesis, I am mostly concerned with collective voice voting and collective voice participation. Individual voice may be important in some contexts, but it is sufficiently different from collective voice that joint analysis is pointless and I simply have nothing interesting to say on it.

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[5] An additional form of exit occurs when a consumer exits from one publicly funded but privately run provider to another, as in voucher-based private school systems. It is not immediately clear how this should be classified. If we consider publicly funded but privately run schools as public organizations we have internal exit. If we consider them private organizations we have simple market exit which should not be included in the classification of political exit. It is plausible that we ought to consider movement between publicly funded but privately run schools as a type of political exit, but it is not clear where we should draw the line. A consumer choosing where to spend food stamps seems like a clear case of simple market competition, despite the public funding. Though I admit there is a grey area here, I will not spend any time considering whether and where we ought to draw the line between public and private organizations. For any given dividing line, some types of exit will be considered internal in the above schema and some will be excluded from the domain of political exit.

[6] This is based on Dowding and John's table 2.5 (Dowding & John, 2012, p. 44).

There are other important dimensions on which types of voice can be distinguished, however. One important distinction is between horizontal and vertical voice (Dowding & John, 2012, pp. 16–17). Vertical political voice is directed at the agents of government (e.g. voting, petitions), while horizontal voice is directed at other citizens (e.g. issue advocacy, political argument). This thesis tends to focus on vertical voice, and particularly voting, though the arguments often also apply to horizontal voice.

1.2.2. The relationship between exit and voice

Hirschman's central claim in *Exit, Voice, and Loyalty* is that exit options make voice less attractive and will in some cases lead to a decline in quality. Economists generally think that competition – i.e. the existence of consumer exit options – increases service or product quality by providing incentives for improvement. Hirschman points out that curtailing exit is not always a motivating factor, however, and argues that exit can sometimes undermine the only effective response many individuals have. Hirschman uses the example of Nigerian railways, which faced competition from trucking but did not have the institutional features encouraging a response to the threat of exit. The result was that the most dissatisfied customers left and those left behind were denied their most vocal allies, leading to further declines in quality (Hirschman, 1970, Chapter 4).

For Hirschman, exit options reduce the quantity of voice (i.e. the likelihood any individual will use voice to influence the organisation) through a simple substitution effect, and points out that this is problematic for two reasons. First, exit options will prompt the most quality-conscious consumers to leave first. Since the most quality conscious are, other things equal, the most likely to voice their concerns, exit will tend to remove the most vocal consumers from the organisation (Hirschman, 1970, pp. 45–46). Moreover, Hirschman sees voice as a skill which must be exercised if it is to be developed and maintained. By substituting for voice in one instance, exit has a negative effect on the prospects for future voice: 'The presence of the exit alternative can therefore tend to *atrophy the development of the art of voice*' (Hirschman, 1970, p. 43 emphasis in original).

Hirschman also recognised that exit options can in some instances be a complement to voice. When exit can be wielded as a threat by individuals, their bargaining position relative to the organisation is increased and the organisation will have stronger incentives to listen (Gehlbach, 2006; Hirschman, 1970, pp. 82–

86). Many individuals might use voice in the first instance and only exit if the organisation is not responsive (Dowding & John, 2012, pp. 11–12). The incentivising effect of exit, however, depends crucially on the institutional environment (Warren, 2011, pp. 692–694). This is particularly important in the context of politics. While profit-seeking firms can reasonably be assumed to be motivated by threats of exit, this is not necessarily the case with public organisations, whose objective functions are not nearly so uniform or observable.

It is impossible to make general statements about the compatibility or complementarity of exit and voice, since the relationship between the two concepts is highly dependent on the context. Sometimes exit and voice will play nicely together, but there will also be situations of genuine conflict. When such conflicts arise, the relative desirability of exit and voice becomes an important consideration. While desirability is also context-dependent, it is worthwhile making some general points here.

In the political context, the distinction between exit and voice is closely related to that between individual and collective choice. Many of the arguments raised in support of markets over democratic government (or vice versa) can be repurposed as arguments for exit over voice (or vice versa). The most compelling general argument for voice and against exit is the need for collective action. When market failures exist – when pollution needs to be reduced or a public good such as national defence needs to be produced – collective action often depends on a lack of exit options (Warren, 2011, pp. 685–686). A powerful argument for exit over voice – and one I will return to in this introduction and throughout the thesis – is that exit decisions tend to be more rational and well-informed than (collective) voice decisions. Since voters, protestors, and policy advocates have only a small chance of influencing policy outcomes, they have little incentive to gather information and impartially weigh the options. Exit decisions, on the other hand, make individuals decisive and provide stronger epistemic incentives (Caplan, 2007; Somin, 2011, 2013).

These points regarding the relationship between and relative merits of exit and voice can be made concrete by discussing contemporary debates over Tiebout exit. As mentioned above, Tiebout exit occurs when individuals, households, or firms physically relocate in order to consume a different set of public services or live under a different set of policies. While Tiebout's (1956) original model was one of citizens sorting themselves into local governments, the Tiebout model has

been modified and extended in various ways. One important extension has been to consider the competitive response of governments and the ability of exit to constrain government power (G. Brennan & Buchanan, 1980, Chapter 9; S. Sinn, 1992; Weingast, 2009). Another has been the application of the Tiebout model to international jurisdictional competition (Edwards & Mitchell, 2008; R. McKenzie & Lee, 1991; Somin, 2008).

Tiebout models have been the catalyst for a number of politically-charged debates. While the Tiebout idea is often treated as economically right-wing, this characterisation is misleading for a number of reasons. First, even if we accept that jurisdictional mobility has 'right-wing' effects, those on the left should not reject the model as an analytical device on these grounds. A better strategy would be to take the positive dynamics of Tiebout seriously and use it as an argument for policies which restrict mobility or otherwise prevent competition (Dowding & Hindmoor, 1997, p. 457). Moreover, Tiebout exit options might be designed in a variety of ways and some of these may be highly conducive to left-wing goals. John (1997) argues for a modified version of the Tiebout framework, suggesting that 'the institutional framework could be better designed to make the best of Tiebout behaviour' (John, 1997, p. 75). Similarly, King (2004) argues that features of polycentric systems should be justified and chosen piecemeal. It is difficult to deny, however, that Tiebout exit is generally viewed positively by those favouring expansions of the market and negatively by those favouring expansions of the state. This is perhaps not surprising, since in the limiting case of sufficiently many competing governments and low-cost mobility, Tiebout competition reduces to ordered anarchy, with competing local jurisdictions facing constraints similar to those of competing protection agencies (Bell, 1991; Boudreaux & Holcombe, 1989; D. Friedman, 1989; MacCallum, 1970).

One important debate has been the efficiency properties of Tiebout competition. Advocates of Tiebout competition argue that it allows for the efficient sorting of individuals by preference (Tiebout, 1956), incentivises government efficiency (S. Sinn, 1992), organises dispersed knowledge (Stansel, 2012; Vihanto, 1992), encourages rational deliberation (Somin, 2011, 2013), and promotes desirable institutional reform (Kerber & Vanberg, 1995). Just as markets in ordinary economic goods force producers to compete for consumers by giving them what they want, markets in governance force states to give consumers what they want. While externalities and other market imperfections exist at the margins of Tiebout

competition, proponents argues, these are small compared to the inefficiencies of centralised monopoly government.

Opponents have insisted that exit options prevent the correction of large-scale market failures (Cai & Treisman, 2004; H. Sinn, 2003). A much-studied example is the apparent 'race to the bottom' in environmental regulation. The coercive prevention of pollution through regulation or taxation is justifiable on liberal grounds insofar it prevents people from harming unwilling third parties. However, the benefit of a cleaner environment is often not tied to residence in a particular jurisdiction. This is particularly true of genuinely global public goods such as global warming mitigation. Even if everyone were better off in a world of strong environmental regulations, each person would prefer to free-ride on the mitigation effort of others by moving to a low-regulation jurisdiction. If policy-makers respond to the demands of foot-voters, we will have lower than optimal levels of environmental regulation (H. Sinn, 2003, Chapter 5)

A related argument is that Tiebout exit undermines the welfare state by allowing the rich to move away from their obligations to the poor.[7] If exit is low-cost, any non-benefit tax will encourage the taxed to leave the jurisdiction. Insofar as welfare payments are simply redistributive (i.e. not producing a public good for all those living in the jurisdiction), welfare payments are made less feasible by the threat of exit. In the limiting case of costless exit, any redistribution would instantly prompt complete exodus by the fiscal losers and beneficiaries would lose their base of support. A social safety net or some stronger form of rich-to-poor redistribution is important to many liberals on the grounds of equality of opportunity or simple humanitarianism (H. Sinn, 2003, Chapter 3).

Another consideration is the effect of Tiebout exit options on democratic participation, competence, and empowerment. Many see political fragmentation and exit options as enabling a withdrawal from mass society which undermines democracy (Blakely & Snyder, 1997; E. McKenzie, 1996). Others claim that mobility erodes social capital and thereby reduces democratic participation (Putnam, 2001; Schiff, 1992). On the other hand, Tiebout exit options can be a

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[7] This is not a market failure in a technical sense, but many see redistribution as an important role of the state and demanded by justice (Rawls, 1971). Some have made the argument that social insurance can be seen as correcting a market failure arising from a lack of a market for insurance against adverse outcomes in the genetic lottery and randomness in career opportunities (H. Sinn, 1995).

tool of democratic empowerment which forces governors to respond to voice (Sørensen, 1997; Vanberg, 2008).

The general point here is that exit places limits on collective action. If we see government as generally efficient and benevolent, exit might prevent it from doing good. If, on the other hand, we see government as inefficient or predatory, exit might prevent it from doing evil. We know, of course, that governments are neither perfectly good nor perfectly evil, and this means that exit option will have both costs and benefits and this calls for comparative analysis.

Other forms of exit have been the topic of similar debates. Consider exit in the school system, whether internal exit as in charter school systems or private exit as in systems which encourage private school education through vouchers or tax credits. Advocates see exit as promoting the efficient production of education (Chubb & Moe, 1990; M. Friedman, 1962, Chapter 6) and enabling deliberative engagement (Mintrom, 2003) while opponents see exit options as increasing inequality and eroding public education (Barber, 1993; Gutmann, 1999).

1.3. Revisionist public choice theory

In addition to the normative divide in the exit and voice literature, there is a more pronounced methodological divide. To simplify, we have one group taking an economic approach – using a thick conception rational choice as hyper-rational selfishness, using rigorous mathematical theory and statistical empirical methods, and using some form of economic efficiency as the normative standard of evaluation. An example of this approach is the debate over the efficiency of environmental regulation given Tiebout competition which compares the equilibrium outcome of interaction among self-interested and fully-informed agents against an optimal level defined in terms of efficiency (Cumberland, 1981; Oates & Schwab, 1988).

On the other side, we have those taking a more informal approach to normative and descriptive argument. These theorists deny that normatively-relevant concepts can be reduced to simple and measurable concepts and that human motivation can be reduced to a well-behaved preference function. Following the maxim that it is better to be vaguely right than precisely wrong, these theorists argue about important things but often somewhat vaguely. An example of this approach is the work in political theory asking whether the possibility of exit is sufficient to

protect individual rights in non-liberal communities (Galston, 1995; Kukathas, 2003; Kymlicka, 1995; Okin, 2002).

Each of these approaches has value, and we would not have such a rich understanding of the world were it not for an intellectual division of labour based on the comparative advantages of philosophers and economists. I maintain, though, that combining these two approaches will yield insight unavailable to either in isolation. McCloskey (1994, Chapter 13) sees a trade-off between rigour and relevance, and argues that modern economics has become too rigorous and made itself irrelevant. While I would not make such a broad claim about the irrelevance of mathematical economics, the methodological approach of this thesis rests on the idea that we can gain new insights by trading a little rigour for a good deal of relevance at the margin. This, I think, is what revisionist public choice theory does.

Thomas Christiano (2004) first made the distinction between mainstream and revisionist rational choice theory, applying the former label to Hardin (1999) and the latter to Brennan and Hamlin (2000).[8] Christiano's distinction is focused on Brennan and Hamlin's account of dispositional motivation:

> Mainstream rational choice theory, as I shall conceive of it, adheres strictly to the thesis of *homo economicus*. In other words, it explains the operation of institutions and justifies the reform of those institutions under the assumption that individuals normally maximize their own utility in every action they undertake. … By contrast, revisionists think of individuals, at least in a large set of cases, as not maximizing utility in every action but as adopting dispositions to act that maximize utility for the person on the whole (Christiano, 2004, p. 123).

Brennan and Hamlin (2008) embrace Christiano's label but extend the scope of the definition to include various other amendments to the mainstream view. Though not offering a precise definition of revisionist public choice theory, Brennan and Hamlin argue that the approach 'seeks to move away from the strict

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[8] Other important revisionist works which predate the label include Brennan and Buchanan (1984), Gauthier (1986), Brennan and Lomasky (1984, 1985, 1989, 1993), Brennan and Hamlin (1995, 1998, 1999, 2002), Hamlin (1996, 2003), Hamlin and Jennings (2004), Hirschman (1984), Schuessler (2000a, 2000b), and Glazer (1987).

conception of *homo economicus*, and this movement operates in several dimensions' (G. Brennan & Hamlin, 2008, p. 77). They then identify three of these dimensions – the motivational, the dispositional, and the expressive – without claiming that these dimensions exhaust the scope of revisionist public choice theory. I will discuss these dimensions and add some of my own shortly, but it is first worth pausing to consider the value of realism in political theory more generally.

Formal rational choice theory provides a coherent framework which makes assumptions explicit and allows arguments to be evaluated for logical validity. While the assumptions of rational choice theory are always simplifications of reality and often false, all theory makes simplifying assumptions and informal theory generally makes assumptions which are less transparent (Morton, 1999, Chapter 2). The papers of this thesis retain the framework and methods of rational choice theory but reject in various ways the additional assumptions often made by economists in the name of simplicity. By relaxing assumptions of the universal pursuit of instrumental self-interest, we are giving up some rigour in the sense that we can no longer guarantee consistency in assumptions. In exchange, we can make our analyses more relevant by more closely approximating real-world conditions. Meanwhile, the rational choice framework makes assumptions explicit and thus prevents us from losing too much rigour.

Public choice theory is the application of economic methodology – i.e. rational choice theory – to political processes. Whereas traditional public finance often implicitly assumed a benevolent despot model of government, public choice theorists claimed that we should treat economic and political decision makers on an equal footing. People do not abandon their interests as when they enter parliament or the voting booth, and motivational symmetry is required. Economic actors are generally assumed to be self-interested utility maximisers, and the same assumption should be made of political actors.[9]

Conventional public choice theory sought to rid political analysis of romance (Buchanan, 1984), but the method by which this was often achieved – strong rationality assumptions, the use of economic efficiency as the normative criterion, and a focus on equilibrium analysis – also led to neglect of causally-important motivational factors and normatively-interesting outcome variables. Rational

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[9] Mueller (2003) is the canonical overview of the field. Hindmoor (2006) provides a more balanced introduction to rational choice theory in politics.

choice theory is, I maintain, an indispensable organising framework for positive analysis. Strong assumptions about selfishness and epistemic prowess or a narrow focus on equilibrium and efficiency, however, are not necessary for rigorous social science or analytic normative theory and can hinder the pursuit of interesting questions.

Rational choice theory assumes that people can rank alternative states of the world, have beliefs, and will act on the basis of these beliefs to bring about their most desired state of the world as constrained by the opportunities at hand. A full rational choice explanation of action makes reference to both beliefs and desires, since rational action is conceptually incoherent without both elements (Dowding, 1994; Elster, 1989, Chapters 2–3; Hindmoor, 2006, Chapter 8).[10] There is nothing in this framework which requires selfishness, omniscience, or infallibility. Altruistic, selfish, and spiteful motivations are equally consistent with rational choice theory, as are all manner of beliefs. Nor is there anything in public choice theory which requires that efficiency be privileged as a normative standard of evaluation or equilibrium as the analytic focus.

Nevertheless, it is difficult to dispute Christiano's claim, endorsed by Brennan and Hamlin, that mainstream rational choice political analysis does in fact make more restrictive assumptions which render incoherent ideas such as non-instrumental motivation, moral preferences, and dispositional choice. Consider Dennis Mueller's influential definition:

> Public choice can be defined as the economic study of nonmarket decision making, or simply the application of economics to political science. The subject matter of public choice is the same as that of political science: the theory of the state, voting rules, voter behavior, party politics, the bureaucracy, and so on. The methodology of public choice is that of economics, however. The basic behavioral postulate of public choice, as for economics, is that man is an egoistic, rational, utility maximizer (Mueller, 2003, pp. 1–2).

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[10] In rational choice models beliefs and desires are often fused together as preferences with no explicit recognition of the cognitive and motivational components. This is generally fine when we take desires and beliefs as given, but I take the conceptual distinction between desires and beliefs as a necessary element of rational choice theory as a formalisation of the Humean vision of action as elaborated by Davidson (1963).

All but the final sentence of this passage is consistent with revisionist public choice theory. If we deny that public choice is the application of economic methodology (i.e. rational choice theory) to politics, it is difficult to conceive of what public choice theory could be. The final sentence is where revisionist theorists begin to take issue with Mueller's characterisation of the field. Brennan and Hamlin have no problem with the idea of utility maximisation, when this approach is understood as not making any specific assumptions about the content of individual utility functions (G. Brennan & Hamlin, 2000, Chapter 2; Dowding, 2011; Hindmoor, 2006, pp. 183–189). Their issue is with the assumption of egoism. I also endorse the idea of utility maximisation as a defining feature of rational choice theory while rejecting any definition of rational choice theory in terms of the content of utility functions. Without attempting to exhaust the possibilities of revisionist public choice theory,[11] I would like to expand Brennan and Buchanan's list of dimensions as follows: the motivational, the dispositional, the expressive, the epistemic, the evaluative, and the dynamic. Each of these dimensions will be discussed below, though I will skip over elements of these dimensions which I do not use in this thesis.[12]

1.3.1. The motivational

The motivational dimension of revisionist public choice theory concerns the content of political actors' utility functions. Mainstream public choice theory assumes political man to be self-interested, whereas the revisionist theorist can introduce the possibility of other-regarding and moral preferences. Other-regarding preferences have received a reasonable amount of attention from rational choice theorists. People have preferences over the welfare and behaviour of others, and these can be incorporated in an individual's utility function in much the same way as any other good (Fehr & Fischbacher, 2002). Individuals may have preferences which are altruistic (Andreoni, 1990; Margolis, 1982), reciprocal (Rabin, 1993), meddlesome (Becker, 1957; Buchanan, 1986; Sen, 1970), envious

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[11] One notable possibility is the introduction of endogenous preferences (Bowles, 1998). For a public choice application see B. Taylor and Crampton (2010).

[12] Two notable examples from the motivational dimension are esteem as a motivational force (G. Brennan & Pettit, 2000, 2004) and the heterogeneity of moral preferences (G. Brennan & Hamlin, 1995). The absence of these elements here is due simply to the fact that I do not use these concepts in the thesis, though the concept of esteem will be used in the concluding chapter nine. I do use the concept of agent heterogeneity more generally in chapter seven and discuss it more explicitly in chapter nine.
A more comprehensive overview of revisionist public choice theory would no doubt give these ideas a great deal of attention.

(Chaudhuri, 1985; Kirchsteiger, 1994; Kolm, 1995), or spiteful (Morgan, Steiglitz, & Reis, 2003; Saijo & Nakamura, 1995).

The existence of other-regarding preferences has serious implications for normative political theory. Many rational choice liberals see externalities as providing a *prima facie* justification for state intervention, and externalities are often defined in terms of preference. If we define externalities in this way, however, we open the possibility of 'mental externalities' being used to justify policies any self-respecting liberal would reject. If homosexuality, for example, were sufficiently offensive to a sufficient number of people, welfare economics would have no grounds to oppose coercive regulation of sexuality (Rasmusen, 1997, 1998). Even if we reject the normative implication that meddlesome preferences should be given normative weight, it is clear that such preferences do motivate people, and this will have implications for institutional design (Goodin, 1995, Chapter 9; Sen, 1970, 1979a; B. Taylor & Crampton, 2010).

Individuals may also have a preference for behaving morally independently of the welfare or behaviour of others (G. Brennan & Hamlin, 2000, Chapter 1; Schmidtz, 1995). On this understanding, a preference for moral behaviour would be included as an element in the individual's utility function alongside a preference for wealth and leisure. Rational actors would then tend to behave morally when the cost of doing so in terms of these other preferences is low.[13] If people hold non-consequentialist moral views and a preference for being moral, they will other-things-equal prefer certain courses of action over others quite apart from the consequences for themselves or others. A philosophical libertarian, for example, will prefer not to coercively interfere in the private affairs of another, regardless of the outcome of such interference.

More generally, preferences over states of the world need not be, to borrow a term from probability theory, 'memoryless.' That is, preferences need not be restricted to outcomes narrowly defined as observable states of the world regardless of how they came about. People might also have preferences over the processes through which states of the world are reached (Frey, Benz, & Stutzer, 2004; Frey & Stutzer, 2005; Sen, 1997). Of course, a full description of the state of the world will include

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[13] It is also possible to model moral commitments deontologically as binding motivational constraints or preferences with lexical priority over others (Etzioni, 1988; Rabin, 1995). Vanberg (2008) argues that preferences for acting morally are preferences over actions rather than outcomes and as such must be incorporated into an account of rule following. This argument is similar in many respects to Brennan and Hamlin's dispositional account, which is the subject of section 1.3.2.

its history, so in a tautological sense processes are outcomes. Still, there is an important distinction here between preferences over culmination outcomes and comprehensive outcomes (Sen, 1997). Consider the methodology of social choice theory. Here, attention is focused on the distribution of utilities across individuals without considering the identity of those individuals or the processes through which outcomes emerge. As Dowding (2004) argues, this blindness to process (including consent) is what generates Sen's (1970) proof of the impossibility of a Paretian liberal and renders the result irrelevant to the concerns of liberal political theory, which is interested in process (and particularly with consent).[14]

A key point about the rational choice analysis of other-regarding and moral preferences is that such preferences are included in individuals' utility functions along with more conventional economic goods. Morality has a downward sloping demand curve, and neither morality nor self-interest is given lexical priority over the other. The satisfaction of other-regarding or non-instrumental preferences is a good which often needs to be paid for with the frustration of self-regarding instrumental preferences. As the cost of such satisfaction changes, behaviour will respond in certain predictable ways.

1.3.2. The dispositional

Many of the choices we make on a daily basis are guided by habit and or intuition rather than rational deliberation. When we have a tendency to make certain choices or think about decisions in certain ways, we can be said to have dispositions. Dispositions as non-rational influences on choice may seem like a challenge to rational choice theory, but Gauthier (1986) and Brennan and Hamlin (1995, 2000, Chapters 3–6; Hamlin, 2006) argue that dispositions are also the objects of rational choice. Dispositions can be seen as general tendencies which influence, but do not absolutely determine the outcome of a series of future decisions. Consider the familiar example of the possibility of self-defeating egoism. If, as Parfit (1984) suggests, strict adherence to instrumental rationality would be self-defeating (i.e. one could better satisfy their preferences by not actively seeking their satisfaction), an individual may rationally adopt a non-rational disposition. On this reading, 'it is the actor who is rational, not each and every action' (G. Brennan & Hamlin, 2000, p. 36).[15]

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[14] See also Dowding (1997) for a similar critique of Arrow's impossibility theorem.

[15] Robert Frank's (1988) discussion of the strategic role of emotions uses similar logic.

Brennan and Hamlin offer the example of trust. A serious challenge in securing mutually beneficial exchange is the problem of *ex post* opportunism. Repeat interaction and external enforcement mechanisms will be capable of solving or mitigating the problem some of the time, but this will often be costly or impossible. A dispositional commitment to keeping one's promises regardless of the incentives to the contrary will often be a more effective solution. Similarly, a rational individual seeking to avoid conflict will often back down when threatened and let bygones be bygones when it comes be being wronged by others. Cultivating a stubborn and vengeful disposition will prompt irrational behaviour in certain circumstances, but if visible it will also discourage others from bothering you.

Trust and vengeance are in a sense two sides of the same coin: they both involve committing now to certain actions which will later be against our interest but which alter others' expectations and secure us a greater long-term payoff. The relationship between trust and vengeance is well-illustrated by the violent insinuation of House Lannister's unofficial motto in George R. R. Martin's *A Song of Fire and Ice* Series of fantasy novels: 'A Lannister always pays his debts.' The adoption of an honest disposition allows the Lannisters to realise trades which would be impossible for rational utility maximisers due to the possibility of *ex post* opportunism. The imprisoned Tyrion Lannister could not credibly promise gold to his jailer Mord in exchange for his delivery of a message to Lady Arryn (G.. Martin, 1997, Chapter 38). Meanwhile, the adoption of a vengeful disposition, as reflected in Tywin Lannister's willingness to start a war in retaliation for the imprisonment of a son he despises, reduces the expected value of aggressing against House Lannister and thus increases their long-term security by encouraging irrational decisions in particular situations.

Of course, in some cases such as those described above there will be selfishly rational reasons to behave honestly. With repeated interaction and long time horizons it may indeed make sense to pay one's debts in a one shot sense. Gauthier and Brennan and Hamlin are however interested in dispositions which allow one-shot interests to be overridden. If Tyrion knew he would never again interact with Mord and that no potential future trading partners would learn of the encounter, the selfishly rational action would be to renege on the promise *ex post*. Mord, being a simple but rational chap, would predict this and refuse to deal with Tyrion. In such circumstances only a visible disposition to behave irrationally *ex post* can secure compliance *ex ante* and increase greater long term payoffs. Simply behaving

rationally *ex post* will not work, since (a) the opportunity to do so will not arrive, and (b) if it did opportunism would be a more attractive option.

Thus dispositions can be analysed as tools used instrumentally by knaves in order to pursue their own welfare. This does not exhaust the possibilities, however. Individuals may also adopt dispositions to behave in certain ways in order to pursue non-selfish preferences of the type discussed above. An individual with a desire to maximise the aggregate happiness of sentient beings and a belief that meat production generally reduces aggregate happiness may adopt a vegetarian disposition. Such a disposition is obviously related to beliefs and desires but it cannot be identified with either. Rather it is a general inclination which in the long term can be influenced by beliefs and desires and in the short term influences how beliefs and desires are converted into action. The ethical vegetarian does not on a case-by-case basis consider whether eating this or that portion of meat will decrease aggregate happiness. Being a vegetarian normally means taking certain food choices off the table. Moral reasoning plays a role, but reflection is over whether and how to modify the disposition rather than whether particular choices are morally permissible (Hamlin, 2006, pp. 4–9).

It should be noted that dispositions do not absolutely determine actions. Most vegetarians would be willing to choose bacon over starvation without seeing this as a rejection of the disposition. More commonly, vegetarians may periodically succumb to weakness of will while vowing to maintain their vegetarianism thereafter. Dispositions form part of our motivational machinery and will compete for influence over choice with preferences and perhaps other dispositions.

1.3.3. The expressive

Perhaps the most well-developed strand in the revisionist literature is the theory of expressive voting. This idea can be seen in embryonic form in a number of early works (G. Brennan & Buchanan, 1984; G. Brennan & Lomasky, 1984, 1985, 1989; Buchanan, 1954a; Fiorina, 1976; Goodin & Roberts, 1975; Tullock, 1971), but received its first general and rigorous statement in Brennan and Lomasky (1993).[16] Brennan and Lomasky distinguish between instrumental and expressive preferences. Instrumental preferences are over outcomes while expressive preferences are over the individual's own choices. The defining feature of expressive preferences is that they are *procedural* in this restricted sense. When

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[16] Hamlin and Jennings (2011) review the literature on expressive political behaviour, outlining the important recent developments.

acting instrumentally we take some action in order to bring about some outcome, and our preference is only satisfied in the case that the desired outcome eventuates. When acting expressively, we are taking an action for its own sake, and our preference is satisfied by the very act of choice.[17]

Rational actors, in the expressive voting model, have utility functions which feature both expressive and instrumental arguments. When expressive and instrumental elements point in opposite directions in some choice situation, the expressive benefits of one option will need to be weighed against the instrumental benefits of the alternative to reach an all-things-considered preference. Other things equal, we would expect expressive preferences to have more sway in low-stakes decisions, since here instrumental preferences will be relatively weak.

The central claim of expressive voting theory is that voting choices in large elections will be made significantly, and perhaps even entirely, on expressive rather than instrumental grounds. When making a choice which only probabilistically produces the intended outcome, potential instrumental benefits need to be discounted by this probability. In the case of voting, the individual voter decides electoral outcomes only in the extremely unlikely event that they make or break a tie. There is no generally accepted way of calculating this probability in general, but Gelman et al (2009) estimate that the average voter in the 2008 US Presidential election had a roughly 1 in 60 million chance of pivotality, with those more pivotally placed in swing states having as much as a 1 in 10 million chance. Suppose that an average voter in this election had an expressive preference for Obama but an instrumental preference for McCain. That is, they would directly value the act of voting for Obama but would prefer that McCain become President. The choice situation this individual faces is whether to give up a certain expressive gain in exchange for a 1 in 60 million chance of securing a, presumably greater, instrumental gain. Unless the instrumental preference for McCain is more than 60 million times greater than the expressive preference for Obama, and further assuming that the actor is neutral or averse to risk, they will vote for Obama.

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[17] The concept of expressive choice has been used in a number of ways inconsistent with the definition given above. For a thorough analysis of definitional issues, see Hamlin and Jennings (2011, pp. 648–655). Whereas their focus is on the expressive nature of choice I wish here to emphasise the potential for *non-instrumental* nature of preferences over actions. I believe my framing of the issue is consistent that that of Hamlin and Jennings, but I see no need to identify non-instrumental choice so closely with symbolism at a methodological level.

The normative implications of this view are potentially very significant, but it is not entirely clear whether on balance they undermine or support democracy as a mode of decision making.[18] Most obviously, expressive voting decouples electoral choice from preference and thereby undermines the standard instrumental case for democracy (G. Brennan & Lomasky, 1989). In extreme cases we could see unanimous support for options which would be unanimously rejected if voters were each allowed to choose decisively (G. Brennan & Lomasky, 1984). Moreover, if we think expressive preferences are likely to be meddlesome, bigoted, or malicious, expressive voting could produce illiberal outcomes (Glazer, 2008; Hillman, 2010; Roback, 1986). If expressive preferences are based on sound moral reasoning, on the other hand, the low-stakes nature of the voting booth could create a 'veil of insignificance' which encourages impartial deliberation (G. Brennan & Lomasky, 1985; Goodin & Roberts, 1975; Kliemt, 1986).

1.3.4.   The epistemic

A common complaint levelled against economics as a framework for positive prediction and normative evaluation is that it assumes full information and superhuman powers of calculation. While these complaints are often seriously overstated,[19] it is true that full information and costless discovery of the optimal choice is often assumed in economic models. It should be emphasised that such assumptions are reasonable in answering certain questions, but the revisionist would argue that relaxing such assumptions is often necessary. While costly information has become an important component of mainstream economic analysis, the possibility of epistemic irrationality in the sense of having beliefs at

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[18] A similar point could be made about the positive predictions of expressive voting theory. Instrumental theory makes a number of predictions which might be rejected if we accept the expressive account. Many of the precise predictions of expressive theory, however, depend crucially on the nature of expressive preferences and are indeterminate as far as the positive political theorist is concerned. See Brennan and Hamlin (1998) for an analysis of electoral equilibrium under expressive voting.

[19] Economists have modelled information imperfections for some time. George Stigler (1961) – a paragon of the Chicago price theory approach against which such attacks are most often directed - was a pioneer in this area, with later work in the 1970s on asymmetric information proving extremely influential and producing a Nobel prize in 2001 (Akerlof, 1970; Spence, 1973; Stiglitz, 1975). The neglect of non-informational decision making costs has been more serious in mainstream modelling, but the large literatures of behavioural economics and bounded rationality and two Nobel prizes suggest that the mainstream is at least aware of such problems. Again, even die-hard neoclassical theorists recognise this: 'The making of decisions is costly, and not simply because it is an activity which some people find unpleasant. In order to make a decision one requires information, and the information must be analyzed. The costs of searching for information and of applying the information to a new situation are such that habit is often a more efficient way to deal with moderate or temporary changes in the environment than would be a full, apparently utility-maximizing decision' (Stigler & Becker, 1977, p. 82).

odds with the available evidence has remained on the margins of academic discourse.

In considering the issue of epistemic rationality it is important to distinguish between beliefs and desires in the Humean sense. Preferences in rational choice models are often an amalgamation of belief and desire, with the ranking of alternatives emerging from their combination. There are a number of ways we might distinguish between desire and belief, including taking an explicit belief-desire approach or distinguishing between basic and non-basic preferences, the former being free of epistemic content and the latter not. Humans presumably have very few basic preferences, with non-basic preferences being built from these primitive desires along with beliefs (Hausman, 2012, p. 36).

The revisionist account of rational choice accepts that information is costly to gather, that decisions are costly to make, and that an instrumentally rational actor will therefore often be ignorant, epistemically irrational, and may rely on heuristics and dispositions rather than thinking at the margin about every decision. This view of human action receives empirical support from behavioural and experimental economics. As Kahneman (2011, p. 35) puts it: 'In the economy of action, effort is a cost, and the acquisition of skill is driven by the balance of benefits and costs. Laziness is built deep into our nature.' In addition to the effort required for optimal choice, there may be psychological costs of dispassionate rationality in terms of the overturning cherished beliefs or admitting that we got things wrong. People seem to engage in motivated reasoning (Kunda, 1990; Lodge & Taber, 2000) and rely on affect in many situations (Loewenstein & Lerner, 2003; Slovic, Finucane, Peters, & MacGregor, 2002).

While experimental evidence has shown that individuals often behave irrationally, it also shows that such irrationality can be overcome when the question at hand is deemed important (J. Evans, 2010; Kahneman, 2011; Payne, Bettman, & Johnson, 1993). A useful way of interpreting the evidence from behavioural economics in rational choice terms is that provided by Caplan (2000, 2001a, 2001c, 2002, 2003, 2007), who argues that individuals have preferences over beliefs and over outcomes. When updating our beliefs in order to make a decision, we need to trade off the benefits of being able to take instrumentally optimal actions against the costs of abandoning the beliefs we most prefer intrinsically. In a move similar to, and inspired by, the one made by Brennan and Lomasky (1993), Caplan argues that preferences over beliefs will be given greater relative weight for relatively

inconsequential decisions, and that since voting decisions are more-or-less completely inconsequential they will be made on the basis of beliefs people like to hold rather than beliefs best supported by the evidence.[20]

There are, however, many difficult unanswered questions for the revisionist theorist here. It cannot be that people rationally invest in information acquisition and analysis until the marginal benefit of such equals the marginal cost, since the benefits and costs of information or decision making cannot be known before the fact (Elster, 1986, pp. 19–20). This suggests that the decision about whether to collect more information will not be based on optimisation but some other decision procedure such as habit (Hamlin, 2006; Ostrom, 1998). The switch which shifts us from epistemically irrational choice rules to rational optimisation cannot be triggered directly by the costs of decision making failure, since the proper evaluation of such costs would require rational and costly optimisation. The extent to which such choices can be brought within a rational choice framework able to retain the rigour for which it is known is debatable.

1.3.5. The evaluative

Conventional rational choice theory is sometimes said to be normative in the sense that it is concerned with what individuals *should* do given their preferences, though it remains silent about what they should prefer (Elster, 1986, p. 1). A good deal of rational choice theory is normative in another sense: if we take preference satisfaction to be a good thing, either because we consider preference satisfaction is good in itself or because we think preferences track interests, various conceptions of economic efficiency emerge as standards of evaluation which are both normatively relevant and analytically tractable.

There are a variety of efficiency concepts in economics which vary in their willingness to trade off welfare across individuals. There are, however, two properties common to all efficiency concepts which I suggest revisionist public choice theorists should be willing to relax in some situations: welfarism and anonymity.[21] All efficiency concepts are welfarist as defined by Sen (1979b, p.

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[20] The rational irrationality approach is similar in many ways to Herbert Simon's (1955) model of bounded rationality. An important difference, however, is that Simon relaxes the assumption of optimisation (which I take to be a component of instrumental rationality) while Caplan relaxes the assumption of epistemic rationality. I generally prefer Caplan's approach since it allows us to move beyond conventional rational choice theory while keeping a great deal more of its analytic machinery.

[21] I take these to be necessary but not sufficient conditions for a normative standard to be one of efficiency.

468): 'The judgement of the relative goodness of alternative states of affairs must be based exclusively on, and taken as an increasing function of, the respective collections of individual utilities in these states.' Sen defines utility in terms of preferences, and thus welfarist standards of evaluation take individual preferences as given and compare actions, rules, institutions, etc. on the extent to which they satisfy individual preferences. An additional requirement of efficiency concepts is anonymity as used in social choice theory and welfare economics (Campbell & Fishburn, 1980). A standard of evaluation is anonymous when it treats like individuals alike. That is, nobody in society is given priority over another simply because of their identity. In practice, this means that if we switch the preferences of any two individuals, we will end up with the same result.

In general then, efficiency standards consider only the preferences of individuals, without reference to the content of those preferences or the identity of those holding them. Pigouvian efficiency sums welfare without recourse to extra-welfarist standards, the content of preferences, or the identity of individuals. The Pareto criteria as used by Buchanan (1959) to evaluate changes from the status quo is likewise welfarist and anonymous, though unlike Pigouvian efficiency it privileges whichever state of the world we begin from.[22]

Efficiency standards have a lot to recommend them, especially for economists and liberals. Efficiency is precisely defined and can in principle be objectively measured, meaning that normative analysis can be rigorous, formal, and algorithmic. Moreover, the anonymity requirement satisfies the liberal condition of impartiality regarding individual interests and neutrality regarding the nature of the good life (Barry, 1995; Kukathas, 2003; Rawls, 2005).

While efficiency is clearly a useful axiological standard, revisionist public choice theory is also capable of considering other normative standards. Normative criteria move beyond efficiency to the extent that they give some (equally-intense) preferences or utilities priority over others, consider non-welfare factors such as liberty or the distribution of some resource, or otherwise rank alternatives in abstract terms based on the distribution and intensity of preferences. For many normative questions, non-welfarist standards of evaluation are crucial. If we are

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[22] This violates the principle of neutrality, which requires that options identical in terms of the ordinal preference rankings be treated identically. Many social choice theorists argue is a normatively important feature of a reasonable social welfare function. See Mueller (2003, pp. 138–140) for a comparison of this approach to social choice and Buchanan's.

interested in liberty, for example, we need to think philosophically about what that concept means, rather than attempting to redescribe it in terms of preferences.

Liberty as understood by many political theorists requires the definition of a private sphere which cannot legitimately be involuntarily invaded by other individuals or collectives. Apparently simple rules such as Mill's harm principle do not tell us much, since more-or-less every action has some impact on others and thus the notion of 'harm' is empty without an initial allocation of rights (Buchanan, 1978, pp. 24–26). As Coase (1960) pointed out, externalities are always reciprocal: when there is a conflict between two parties, each can be said to be harming the other depending on how rights are allocated. While there have been attempts to define what should be thought of as a harm within a welfarist framework, the most useful being Buchanan and Stubblebine (1962), most liberals find such answers unsatisfactory. For most of us, the question of what one person can justly do to another without permission cannot be answered without thinking about the content of the act. Sen (1970) famously tried to show that liberalism was incompatible with the weak Pareto criteria (i.e. a change preferred by some and opposed by none is socially preferable to the status quo), though he has rightly been criticised for using an idiosyncratic and implausible conception of liberalism which prevents individuals from voluntarily waiving their rights (Barry, 1986; Dowding, 2004; Hillinger & Lapham, 1971).

The problem with using non-welfarist standards of evaluation is that they are often not amenable to rigorous positive analysis. There is simply no way to define 'liberty' in a way which is simultaneously rich enough to please normative theorists and precise enough to be used in a formal model. To a certain extent, there is an unavoidable trade-off between rigour and relevance. For many questions, however, it is useful to pick out certain non-welfarist aspects of broader values which can be defined precisely. While Hohfeld's (1913) schema of liberty is not capable of capturing everything liberals deem important, it has the great virtue of being precise enough to be included in rational choice analysis.[23]

It is interesting to note that the argument for moving outside a normative rational choice (i.e. efficiency) framework for normative evaluation mirrors the argument

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[23] A willingness to eliminate imprecise language and replace it with explicitly defined and analytically tractable concepts might also, as my colleague William Bosworth (2014) argues, allow political argument to avoid merely verbal disputes and force impartial deliberation, or at least allow truth-seekers to recognise when others are engaged in sophistry and exclude them from debate.

for remaining within a rational choice framework for positive analysis. Positive rational choice theory makes positive assumptions about human motivation explicit, whereas many arguments outside rational choice theory contain strong assumptions which are less transparent. Similarly, the flexibility of the welfarist framework allows many strong normative assumptions to be made in a way which is ostensibly value-free. The fact that a policy is not Pareto-improving, for example, is often taken by public choice theorists to be an argument against it, and this biases normative conclusions towards the status quo and away from redistributive policies (Dowding & Hindmoor, 1997, p. 459). The contractarian stance of much public choice theory suggests that collective action should be mutually-beneficial (Buchanan, 1959, 1975a), but without careful consideration of the initial allocation of rights this is morally problematic. Since everything can be considered as causing harm, an analyst motivated to find inefficiencies will be able to do so.[24] While using the enforcement of meddlesome preferences as a standard of evaluation is certainly not normatively neutral, it is biased in a transparent way. Strict adherence to efficiency when the analyst is really committed to non-welfarist values often produces covert bias.

The way I have framed the issue here suggests that revisionist public choice theory involves the importation of ethical ideas into positive economic analysis. Another way of framing the same approach is as the use of positive economic theory as a means of feasibility analysis (G. Brennan & Hamlin, 2009). If normative theory is to be a useful tool for institutional design, it needs to be nonideal (Schmidtz, 2011). Nonideal theory takes humans as they are and asks which institutions can best be built from this crooked timber. The way humans are and the aggregate effects of decentralised action are far from obvious, however, and this is where positive economic theory comes in.

We need to know not only how institutions behave under the best case scenario or the most likely scenario, but also the worst case scenario. Given that our social scientific knowledge is always imperfect, we need to subject institutions to sensitivity analysis. Further, the world is not a static place and political institutions need to be able to withstand a variety of exogenous shocks. In other words, we

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[24] Crampton et al (2011, 2012), for example, argue that recent estimates of the social cost of alcohol – the focus being Collins and Lapsley (2008) – are seriously inflated. The most plausible explanation for the assumptions made in these studies is that the analysts were motivated to find large social costs and made methodological choices on this basis.

need robust institutions (G. Brennan & Buchanan, 1981, 1983; Hayek, 1949; Leeson & Subrick, 2006; D. Levy, 2002; Pennington, 2011; B. Taylor, 2010).

While robustness analysis can be conducted on welfarist grounds, this does not need to be the case. Comparative robustness analysis requires that we define the institutional alternatives under investigation, the normative standard being used, and the range of assumptions/external changes under consideration (B. Taylor, 2010, p. 101). Taylor and Crampton (2010), for example, take negative liberty as a normative standard and consider the relative robustness of market anarchy and democracy to the existence of meddlesome preferences in varying distributions.

Feasibility analysis has generally been concerned with defining the feasible set among which society or a benevolent despot might choose and ignoring the process by which collective choices are made. The incentives of decision makers within constitutional rules has of course been a central concern of constitutional political economy (G. Brennan & Buchanan, 2000), but when subjecting a particular institution to feasibility analysis the question of how we get from here to there in a political sense is rarely asked. While there is much value in defining the feasible set and abstracting away political challenges, there is also a great deal of value in considering political feasibility as a meaningful constraint on normative theory.

1.3.6. The dynamic

Conventional public choice theory has followed mainstream neoclassical economics in its focus on equilibrium (Ordeshook, 1982). A number of scholars in the Austrian and evolutionary schools of economics, however, have stressed the need for non-equilibrium analysis (Boettke, Horwitz, & Prychitko, 1986; Boulding, 1991; Rosser, 1999). There is no doubt that equilibrium is a crucial concept for social scientists in general and rational choice theorists in particular, but it is important to recognise the limitations of the neo-Walrasian approach which treats equilibrium as the analytic core of economics. Markets and other social systems often have a tendency towards equilibrium, but focusing on the comparative statics of equilibria at the expense of the forces which push social systems toward or away from equilibrium does not provide a complete picture (Wagner, 2010).

Again I emphasise that no one work of social science should aim at providing a complete picture of the social world, since such a picture would be as complex as that which it represents and will be worthless in analytic terms. My point is simply that disequilibrating forces have been relatively understudied by rational choice

theorists and so models in this area might be less likely to bump into decreasing marginal returns to theory. Increasing the realism of theoretical assumptions is not a general imperative but is likely to be worthwhile in this case.

A major dynamic force in economics, and the one which has received the most attention, is entrepreneurship. For Schumpeter (1934, 1942), entrepreneurs destroy existing equilibria while putting the economy on the path to a different one. For Kirzner (1973, 1997), entrepreneurs are an equilibrating force but need to be understood as contributing to a dynamic process of equilibration. Evolutionary economists (Dopfer & Potts, 2007; Loasby, 1991; R. R. Nelson & Winter, 2002) and economic historians of technology (Mokyr, 1992, 2002; Rosenberg, 1982, 1994) have seen innovation as an open-ended process of knowledge accumulation. Rather than upsetting some existing equilibrium or pushing back uncertainty in order to reach equilibrium, inventors and entrepreneurs are gradually and jointly altering the capacities of economic actors.

In general, we know that human behaviour is not based on constrained optimisation in stable environments. The world is complex and humans are imperfect. Except for the most trivial of matters, the parameters of the choice problem are not defined and humans are forced to rely on open-ended trial and error learning rather than mathematical optimisation (Buchanan & Vanberg, 1991; Potts, 2001).

Nevertheless, rational choice theory is a useful tool for the consideration of economic and political dynamics. Consider, for example, the work of Elinor Ostrom (1998) and others of Bloomington school of political economy.[25] Here, actors are modelled as rational in the sense of having beliefs and desires, but also as being able to originate new ideas in order to overcome collective action problems. In mainstream rational choice theory the constraints of the environment are taken as given, but in the behavioural model of rational choice advocated by Ostrom, individuals are able to reach outside their immediate situation in order to attempt to change those constraints.[26] There is nothing inconsistent with rational choice theory as a framework here. A consideration of how entrepreneurs originate ideas would require that we move beyond rational choice theory, but the logic of relative prices remain crucially important to understanding how entrepreneurs behave and how people respond to innovations.

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[25] See Aglicia and Boettke (2009) for an overview of this approach.
[26] There are obvious parallels between this view and the distinction in constitutional political economy between constitutional and in-period choice.

1.4.   The Thesis

The thesis consists of seven papers, along with this introduction and a conclusion. Each of these chapters is either published, accepted, under review, or has revisions requested at an academic journal. Each of these papers deals with exit and/or voice and is revisionist in one or more of the specific sense described in section 1.3. In this section I will outline the argument of each substantive chapter, pointing to its relevance to the exit and voice literature and discussing the revisionist elements of the chapter when these are not obvious in light of the discussion above.

1.4.1.   Chapter two: Rational irrationality as dual process theory

Chapter two 'Rational irrationality as dual process theory' is focused on voice, with the comparison to exit being implicit in the comparative analysis of individual and collective choice. This paper responds to critics of Bryan Caplan's (2007) rational irrationality model of electoral choice as incoherent or psychologically implausible. The most sustained argument to this effect is provided by Bennett and Friedman (2008),[27] who interpret Caplan as claiming that voters knowingly and deliberately choose to hold beliefs they know to be false. Launching a sustained attack on this implicit assumption of Caplan, they conclude that Caplan's entire model is incoherent 'simply because [they] do not know what it would mean for someone to hold an [opinion] if she did not think the opinion were correct' (Bennett & Friedman, 2008, p. 211).

This paper argues against Bennett and Friedman's interpretation of Caplan, pointing out that Caplan is attempting to construct a parsimonious abstract model rather than an accurate description of how humans actually choose. Nevertheless, I show that Caplan's theory as stated is reasonably consistent with the widely-accepted view of dual process theory in cognitive psychology. In dual process theories, humans are modelled as making decisions via a cognitively costless automatic subsystem and a costly reasoning subsystem. Many decisions are made automatically and are thus prone to various cognitive biases. Questions which cannot be answered automatically and which are deemed sufficiently important, on the other hand, must be handled consciously and here cognitive biases can be corrected. I interpret Caplan's model in terms of dual process theory, concluding that Caplan's model does identify an interesting causal mechanism which is plausible and consistent with the extant experimental evidence. I also argue that

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[27] See also A. Evans and Friedman (2011) for a more general argument premised on a similar critique of information economics.

dual process theory suggests a number of points at which Caplan's model might be extended, most importantly a consideration of feedback and learning.

The argument of this paper, I think, has important implications for debates on the relative merits of exit and voice as means of controlling government. Caplan's model makes extremely pessimistic predictions about the epistemic quality of collective voice decisions, and acceptance of these predictions would be a very strong argument for replacing voice with exit wherever feasible and possibly radically reducing the scope of collective action. If Bennett and Friedman are correct that Caplan is talking nonsense and that economic theory is completely irrelevant to the study of political knowledge or rationality, democracy would be relieved of one of its most serious criticisms. Although this chapter does not show that Caplan's conclusions are correct, it does show that they are coherent, psychologically plausible, and worthy of further investigation. I suggest the forms such investigation might take, both theoretically and empirically.

1.4.2.   Chapter three: Exit and the epistemic quality of voice

Chapter three 'Exit and the epistemic quality of voice' applies the ideas of rational ignorance and rational irrationality to the causal relationship between exit and voice by considering a potential spill-over effect between individual and collective decisions in terms of epistemic rationality. Exit options, by providing stronger individual incentives, can mitigate problems of rational ignorance and rationality irrationality in the voting booth. Taking as given the claim that individual exit decisions are more well-informed and rational than otherwise similar collective voice decisions,[28] the paper argues that the existence of exit options can in some cases be expected to increase the epistemic rationality of collective voice decisions. If citizens are empowered to make individual exit decisions regarding public services, the knowledge gained and beliefs updated during this process will be available in their capacity as democratic citizens making collective voice decisions. When there is overlap between the informational requirements of exit and voice decisions, exit will increase the epistemic quality of voice.

This could happen, for example, if a parent in an education system which encouraged school choice considered educational policy. Educational policy issues

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[28] Note that I make no assumption about the magnitude or generality of rational ignorance and/or rationality. The argument requires only that some class of collective decisions are made less rationally than would be otherwise similar exit decisions. The magnitude and generality of such differences determines the scope and power of the argument, however.

such as class sizes and the extent of assessment are complicated and sometimes emotively engaging, meaning that voters are unlikely to form accurate beliefs most of the time, and, if we accept the arguments of Caplan (2007) and Somin (2013), this will lead to bad policy outcomes. If a voter is also a parent who is able to choose between schools offering various combinations of class size and assessment focus, they will have incentives to rationally update their beliefs, and these updated beliefs will improve their voting decisions and, if democratic institutions are working efficiently, lead to better policy outcomes.

This paper is relevant to the academic literature testing and elaborating Hirschman's model of exit, voice, and loyalty. Whereas existing studies have considered the relevant dimensions of voice to be its quantity and effectiveness – i.e. we should be interested in how likely citizens are to voice their concerns and how willing governments or public agencies are to listen – I show that the epistemic quality of voice has been largely neglected, despite a long-standing concern in political theory with democratic competence and a large literature in political science on the nature and importance of political knowledge.

In a practical sense, the paper has relevance to questions of institutional design. In one sense, the paper shows that exit options are more valuable than we would otherwise have thought. Rather than fearing that exit options will crowd out voice, we should welcome the prospect of voice being disciplined by personal experience. Further, the paper suggests that exit and voice ought to be considered jointly as mutually reinforcing mechanisms of democratic control. We cannot simply think about how to design accountability mechanisms based on voice without considering the exit options which make voice worthy of consideration.

1.4.3. Chapter four: Strategic and expressive voting

Chapter four 'Strategic and expressive voting' considers non-instrumental preferences in democratic decision making, arguing *contra* a number of rational choice theorists and political philosophers that strategic voting is entirely consistent with a complete lack of instrumental motivation in a way which does not undermine the predictive or normative power of expressive theory.

The general claim made by the critics is that if voters made choices on an entirely expressive basis, they would not engage in strategic voting. Since strategic voting is a well-documented empirical phenomenon, particularly in the form of not 'wasting votes' on first choice candidates with no realistic chance of winning

office, we can conclude decisively that votes are cast at least partly on instrumental grounds (Christiano, 2004; Dowding, 2005; Mackie, 2011). Drawing on a suggestion made by Brennan (2008), I take issue with the premise that expressive voters would not vote strategically. If people have an expressive preference for casting votes which seem serious or reasonable, the observed behaviour may arise without individuals considering their instrumental preferences at all.

In a narrow sense, this paper is a rejection of an impossibility claim and as such need not concern itself with plausibility. In a broader sense, however, I wish to argue that this is a plausible claim about how individuals make political decisions. To make this argument, I draw on the idea of dispositions and suggest that there may be a great deal of expressive value in strategically optimising a set of expressively-defined preferences. The optimisation *looks* instrumental, and whether we wish to label it as such seems to be a merely verbal dispute. The important point in my view is that voters are interested in how they vote rather than how their votes influence outcomes.

This is an important question for the positive and normative comparison of exit and voice, since the claim that voters in large elections *give no consideration at all* to instrumental concerns increases the predictive and normative power of expressive theory a great deal. Few would deny that voting is partially expressive, but as long as instrumental motivation also plays a role we have some basis for retaining the positive and normative assumptions of instrumental theory. By rejecting what is in my view the most plausible argument for instrumental voting, this chapter keeps the extreme revisionist view of political motivation on the table.

1.4.4. Chapter five: Children's rights with endogenous fertility

Chapter five 'Children's rights with endogenous fertility' shifts attention from positive to normative theory, using rational choice contractarianism as a form of hypothetical exit to consider the interests of a class of individuals who by definition have neither exit nor voice options. Since parents have a great deal of power over their children, a number of liberal political theorists favour the expansion of children's rights legislation which restricts parental sovereignty with the intention of protecting children from their parents.

The debates on this issue have contained themselves to normative theory narrowly defined, with little consideration given to questions of feasibility. This chapter seeks to address this shortcoming by considering the indirect effect of children's

rights legislation on the number of children born. As Gary Becker (1960, 1991) has shown, children can for analytic purposes be considered economic goods subject to the law of demand. Parents have children because they value the services such children provide more highly than the costs of raising children. I argue that children's rights legislation, if effective in altering parental choices, will tend to reduce the demand for children among targeted groups and thus reduce the total number of children born. I argue on liberal grounds that, assuming such lives are worth living, this is a normatively significant possibility which ought to be factored in to political claims and policy evaluation concerning children's rights.

To consider the normative tradeoff between more and better lives, I adopt a modified version of Harsanyi-Rawls contractarianism. By considering the hypothetical choice of the population of possible persons behind a veil of ignorance which obscures not simply one's place in society but also one's very existence, I am able to weigh up competing interests in a way which is impartial between them. I show that children born in illiberal communities might prefer their parents be given sovereignty over their treatment even when this leads to significant and predictable harms. I take this as a potential argument against children's rights legislation.

This chapter shows that the concept of exit can be used hypothetically as a normative device, and also contributes to the debate on the importance of cultural exit from illiberal communities by showing that care is needed when making claims about what liberalism requires without considering the indirect effects. Requiring subnational communities to provide exit rights may seem like a good idea when we consider the interests of those actually existing, but if my argument is accepted we should also think about the second-order effects of such requirements.

Since the revisionist elements of this paper are not as obvious as in the previous three, it is worth explicitly noting them. First, the argument I provide restricts normative standing to children and ignores the preferences of parents. Thus, in its violation of the anonymity principle, the standard of evaluation I am using is not one of efficiency.[29] My analysis is best seen as a type of feasibility/robustness

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[29] This is not because I think parents' preferences should be ignored, but because the purpose of children's rights legislation is to protect children and the costs of such laws to children are far more interesting than costs to parents. Further, the advocates of children's rights legislation I am questioning generally consider only the interests of children and I simply follow this in order to provide an internal critique.

analysis of children's rights legislation: I consider how liberal (with liberalism defined here in terms of impartial preference satisfaction of the relevant population) children's rights laws are when we introduce the possibility of endogenous fertility. If liberalism is undermined in such situations, which I argue is the case, the laws in question are in this sense fragile. Secondly, the preferences of parents which concern us in a predictive sense are other-regarding - malicious or, more plausibly, meddlesome. All parents, it would seem, are interested in raising children with certain values, dispositions, and capabilities. In most cases we find this unobjectionable, but problems arise for the liberal when parents' other-regarding preferences are in sufficient conflict with children's interests.

1.4.5. Chapter six: Analytic radicalism

Chapter six 'Analytic radicalism' continues the normative focus on feasibility and robustness, combining this normative standard with consideration of non-equilibrium dynamics. The paper is a clarification of the 'analytic conservatism' argument of Brennan and Hamlin (2004, 2006) that a risk-neutral decision maker will, due to the commonly-observed concavity of value functions, act as if risk-averse in the realm of institutional choice. This makes the adoption of a conservative disposition appropriate on standard efficiency grounds.

I accept this argument in its general form, but this chapter is interested in setting some scope limitations to the argument. In particular, I show that strong Tiebout exit options will introduce local convexity to institutional value function and thus make risk-neutral decision makers behave as risk-seekers with respect to certain institutional gambles. Thus, in an environment with sufficiently strong Tiebout exit options, the adoption of a radical disposition to institutional change might be preferable in the long term to a neutral or conservative disposition.

In terms of the exit and voice literature, this chapter can be seen as an argument in favour of Tiebout competition as a particular type of institutionalised exit. One of the arguments for Tiebout competition, which I develop along with Patri Friedman as co-author in the following two chapters, is that it allows for institutional experimentation and thus improvement in the quality of governance over time. There is a *prima facie* inconsistency between this claim and the general view of many public choice scholars and constitutional political economists that innovation in policy and institutions is to be avoided on robustness grounds. I also hold this view in general, but this paper is aimed to show that robustness does not require stability when sufficiently strong exit options are presents.

1.4.6.   Chapter seven: Entry barriers and Tiebout completion

Chapter seven 'Entry barriers and Tiebout competition' (co-authored with Patri Friedman) is concerned with the institutional requirements for effective Tiebout competition in a dynamic sense. Two of the major purported advantages of Tiebout competition are that it allows for institutional innovation and robustly protects the wellbeing of citizens. We show that the power of these factors is limited by institutional inertia and the possibility of collusion or endogenous centralisation. Our argument is that these problems would be less serious if the creation of new jurisdictions (through the settlement of uninhabited areas or secession, for example) was a more realistic response to dissatisfaction.[30] We argue that just as economic markets are most efficient and dynamic when entry barriers are low, Tiebout exit options would more robustly prevent rent extraction and encourage beneficial innovation when there exist means of creating new jurisdictions rather than simply reforming existing ones.[31]

This paper is primarily intended as a contribution to debates over the desirability of Tiebout competition. We claim that the potential benefits of such competition are large but that the requirements for such gains to be reaped are more restrictive than is generally recognised. This makes questions of institutional design more complicated than simply whether or not to decentralise. More generally, it emphasises the point that questions of the relative desirability of exit and voice cannot take the options on the table as given. The institutional environment determines not only how people make choices but also how agenda-setters or entrepreneurs create the menu of options.

The revisionist element of this paper is its concern with non-equilibrium dynamics, and particularly its concern with institutional innovation. Innovation economists have long argued that static efficiency considerations pale in comparison to the benefits of technological innovation and economic growth: fixing all the market failures of the medieval economy would not produce people of that time anything

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[30] In terms of the types of exit introduced in section 1.2 above we could think of this as entrepreneurial Tiebout exit.

[31] Revisions have been requested on this paper, but the request came too late to be able to make these revisions prior to submission of the thesis. The comments were generally supportive, with the most significant changes required being a restructuring and reframing of the argument as a response to the argument by Caplan (2001b) and Powell (2004) that tax capitalisation in land values undermines the power of Tiebout competition.

close to the standard of living residents of developed nations enjoy in the 21ˢᵗ century, despite all the inefficiencies which remain.[32]

1.4.7. Chapter eight: Seasteading: Competitive governments on the ocean

Chapter eight 'Seasteading: Competitive governments on the ocean' (also co-authored with Patri Friedman) is also concerned with the non-equilibrium dynamics of political institutions. It argues that those advocating the reform of current political systems in order to promote jurisdictional competition are in a catch-22: jurisdictional competition has the potential to improve policy outcomes and make citizens better off, but such reforms must be enacted by currently uncompetitive governments. Since the argument for competitive government rests significantly on the notion that uncompetitive governments cannot be relied upon to enact worthwhile reforms, there is a whiff of circularity in the proposed path to a better world. To engage in only slight hyperbole, reform designed to increase competition among governments is possible if and only if it is not desirable.

Since existing governments are resistant to change, we argue that the only way to overcome the deep problem of reform is by focusing on the bare-metal layer of society – the technological environment in which governments are embedded. It is at this level that political equilibria are ultimately determined, and attempts to intervene piecemeal in the political process provides less leverage than attempting to alter the technological base from which the political superstructure emerges. Developing the technology to create settlements in international waters, which we refer to as seasteading, changes the technological environment by lowering mobility costs and entry barriers. Crucially, it does so without attempting to push against the incentives of existing political systems. As such, it sidesteps the problem of reform and is, counterintuitively, more likely than conventional approaches to significantly alter the policy equilibrium.

Like chapter seven, this paper is intended as a contribution to the debate on decentralisation and Tiebout competition. Here, we identify a new problem with existing arguments for increasing Tiebout exit options and propose seasteading as a solution to this problem, as well as the entry barriers problem identified in chapter seven. The revisionist elements of this paper are, again like chapter seven, the

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[32] See Baumol (2002) on innovation and economic growth. Holcombe (2009) argues for a reformulation of welfare economics in recognition of the normative significance of economic growth.

focus on non-equilibrium dynamics as a process and dynamic innovation as a normative consideration.

1.4.8. Summary

The papers outlined above have each been submitted to peer-reviewed journals and are at various stages of the review/publication process. Table 1.3 below summarises the status of each paper. This thesis includes the last submitted version of each paper, though references, formatting, and spelling have been standardised. I have included the abstract at the beginning of each chapter but have excluded metadata required by journals such as keywords and *JEL* codes. Chapter eight was published in *Kyklos* with an abstract as well as a longer summary, the latter of which has not been included here.

Table 1.3: Thesis summary

Title	Status	Journal	Notes
Rational Irrationality as Dual Process Theory	Under review	*Rationality and Society*	
Exit and the Epistemic Quality of Voice	Submitted	*New Political Economy*	
Strategic and Expressive voting	Revisions requested	*Constitutional Political Economy*	
Children's Rights with Endogenous Fertility	Revisions requested	*Rationality, Markets, and Morals*	
Analytic Radicalism	Published[33]	*Constitutional Political Economy*	
Entry Barriers and Tiebout Competition	Revisions requested	*Review of Austrian Economics*	Co-authored with Patri Friedman
Seasteading: Competitive Governments on the Ocean	Published[34]	*Kyklos*	Co-authored with Patri Friedman

Each chapter has been drafted as a stand-alone work, but there are a number of common themes running through the chapters which, I hope, can be discerned easily enough. These will be more fully discussed in the conclusion, chapter 9, but it is worth briefly flagging them here. First, each of the papers the papers consider

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[33] As Taylor (2013).
[34] As Friedman and Taylor (2012).

from various angles the relative merits of exit and voice as means of decision making. This is an extremely important question in that it is at the heart of a number of big questions in normative political theory, including debates over geographic decentralisation and devolution, markets versus states, quasi-markets in public services, tax competition, and multiculturalism. While I do deal with some of these issues explicitly at times, my approach is for the most part in the realm of abstract theory and can be expected to contribute indirectly to these debates.

Second, many of the papers (in particular chapters 2,3,4 and implicitly chapters 5,6) deal with the possibility than political and economic choices are made on quite different grounds, even though it is assumed that people have the same basic motivational structure in every context. I take this to be a central issue in positive political science and normative political theory, and I will have much to say about this in the conclusion.

Third, each of the chapters attempts to relax some of the assumptions of rational choice theory while doing so reluctantly. It is worth repeating Dowding's (2001, p. 95) retort to critics of abstraction in political science: 'Without oxygen on this planet there would be no policy process, but I have never seen oxygen mentioned in an explanation of any policy outcome.' Good theory is as simple as possible but no simpler, and the revisionist elements I introduce are best seen as grudging concessions that the phenomena I wish to consider are too complex for conventional rational choice assumptions.

In summary, this thesis contributes to the debate on exit and voice and does so from a particular methodological perspective. The thesis addresses two broad questions, both of which I take to be important in its own way. At a theoretical level it considers the behavioural and epistemic difference between individual and collective choices while retaining a basic motivational symmetry. I take this to be a foundational issue in normative political theory and positive political science, particularly in its rational choice variety. In terms of institutional design, the question of whether to emphasise exit or voice as means of control is one of the biggest questions there is, and it still generates a great deal of debate. I approach these issues by using revisionist public choice theory. This methodological perspective has been underutilised in both positive and normative theory, and while there has been a great deal of exploration in recent years it seems to me that revisionist public choice theory opens the way to a number of analytic vistas

unreachable by either the conventional public choice theorist or those working outside the rational actor tradition.

2. Rational Irrationality as Dual Process Theory

Abstract: *Caplan's rational irrationality model of political choice has been accused of being psychologically incoherent or implausible. While Caplan's account is no doubt counterintuitive, this paper argues that it is consistent with widely-accepted dual process theories of cognition. Caplan's model is best interpreted as a 'default-interventionist' account in which a biased intuitive subsystem produces automatic responses which are overridden by rational reflection when the prospective costs of error are significant. Caplan's model requires further empirical investigation and perhaps stronger psychological foundations, but accusations of incoherence and implausibility are based on a mistaken interpretation of Caplan's argument and the methodology of rational choice theory in general. However, these critiques and a consideration of the dual process literature do suggest areas in which Caplan's model could be extended to increase its predictive and evaluative power.*

2.1.   Introduction

Bryan Caplan's (2001a, 2007) model of rational irrationality attempts to explain how generally rational agents could behave in an apparently irrational way in the political sphere. Caplan argues that individuals have preferences over their own beliefs. We enjoy holding beliefs which are consistent with our biases or which inflate our sense of self-worth.[35] False beliefs will often lead to poor choices, however, and so the material costs of making poor choices need to be weighed against the psychological benefits of holding false but pleasant beliefs. In other words, people have a taste for irrationality and will weigh the psychological benefits of irrationality against the material costs of holding unnecessarily false beliefs. It is instrumentally rational to be epistemically irrational when the benefits of epistemic irrationality exceed the costs.

The expected value $E(X)$ to an individual of holding belief X depends on the material benefits M_X and psychological benefits P_X of holding this belief. In

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[35] Caplan's approach is similar to but distinct from Brennan and Lomasky's (1993) expressive voting model and Kuran's (1995) preference falsification model. Hamlin and Jennings (2011) provide a survey connecting these and other approaches to expressive political behaviour.

Caplan's model, rational individuals will choose whichever X maximises $E(X) = M_X + P_X$.[36] For many beliefs P_X will be trivial and M_X will dominate. For beliefs of little or no practical importance, however, M_X will be at or close to zero, leaving P_X to determine outcomes. In the context of electoral choice, the material benefits to a desirable electoral outcome E_X need to be discounted by the probability of pivotality α. The voter will choose a belief X which maximises $E(X) = \alpha E_X + P_X$.

Since the probability of casting a decisive vote in a real-world election is approximately zero, αE_X will be trivially small and P_X will dominate the voting calculus. For example, Gelman et al (2009) estimate that the average voter in the 2008 United States presidential election had a one in 60 million chance of deciding the outcome. A voter who valued the electoral result at $1 million dollars would be losing less than two expected cents by voting incorrectly. With so little on the line from an instrumental point of view, voters will indulge their biases virtually to the point of satiation, votes will be cast on the basis of prejudice and emotion rather than reason, and policy outcomes will suffer as a result.

Caplan's argument has been heavily criticised from a number of theoretical and empirical directions (Bennett & Friedman, 2008; Elster & Landemore, 2008; Lomasky, 2008; Mackie, 2012; Wittman, 2008). One prominent line of criticism has focused on the psychological plausibility of rational irrationality. The paper defends the rational irrationality framework against these accusations by connecting Caplan's model to recent theoretical and empirical work in cognitive psychology falling broadly under the heading of 'dual process theory.'

The widely-accepted framework of dual process theory provides a wealth of experimental evidence consistent with Caplan's model. While there are many varieties of dual process theory, they make a common distinction between two types or systems of cognition. 'System 1' processes are fast, intuitive, and make no demands of working memory. 'System 2' processes are slow, critical, and require conscious effort. Dual process theories hold that humans use both of these systems in their everyday life, with system 1 being used for many familiar tasks and system 2 being called in when required and performing a supervisory role.

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[36] Caplan does not specify his model explicitly in these terms. The formulation here is my interpretation of Caplan's argument based on his informal argument and graphical representation.

I argue that Caplan's critics have misunderstood the purpose of Caplan's project and that properly understood his model is quite consistent with a great deal of respected theory and evidence from psychology. The dual process literature also points to areas where Caplan's model might be further developed, and in the latter part of this paper I will argue that the predictive and evaluative power of the rational irrationality framework could be increased by consideration of the institutional correlates of learning from feedback.

2.2. The implausibility critique

The rational irrationality framework is highly counterintuitive. We do not normally think of beliefs as consciously chosen and we certainly don't think of belief formation as involving a cost-benefit analysis. The most sustained attack on the psychological plausibility of Caplan's argument comes from Bennett and Friedman (2008, pp. 206–211).[37] In their view, rational irrationality is a fundamentally incoherent concept. Their central claim is that Caplan's model requires voters to knowingly hold false beliefs: individuals must know their beliefs are false but deliberately choose to accept them in order to reap the psychological benefits. This, for Bennett and Friedman, is incoherent. To accept a belief is simply to believe it to be true. Without the absurd claim that individuals knowingly hold false beliefs, Bennett and Friedman argue, Caplan's model collapses into an account of simple, inadvertent ignorance about which rational choice theory can have nothing to say. If individuals do not know that their beliefs are false, they have passively and involuntarily fallen into error rather than actively choosing it. Since there is no choice here, incentives don't matter and economic theory has nothing to say.

Bennett and Friedman's interpretation of the argument is understandable. Caplan (2007, pp. 14–15) approvingly quotes Ayn Rand's conception of irrationality as 'the wilful suspension of one's consciousness, the refusal to think – not blindness, but refusal to see; not ignorance, but refusal to know.' Indeed the very structure of the model suggests that individuals consciously and rationally choose between truth and falsehood. Utility functions in the rational irrationality framework contain information about the material consequences of holding a belief. If this information is in some sense inside the individual's head, they must be consciously throwing away this information when choosing to accept false beliefs.

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[37] See also Mackie (2012, pp. 300–301) and Elster and Landemore (2008, pp. 286–287). A. Evans and Friedman (2011) launch a broader attack on the economic approach to information acquisition on similar grounds.

In a sense, critiques of the psychological plausibility of rational choice models are beside the point. Analytic models of choice in economics and political science are generally not intended as accurate descriptions of psychological processes, but rather as abstractions which capture some important features of a real world process in order to highlight some interesting causal relationship. The value of the model, on this view, is not to be judged on the degree to which its variables represent real world phenomena but on the degree to which the model as a whole produces novel and interesting empirical predictions (M. Friedman, 1953).

We cannot completely ignore the plausibility of a model, however. Useful formal models by necessity ignore many factors and include assumptions we know are, strictly speaking, false. They do, however, pick out important processes in the real world and represent them in a simplified form which nevertheless captures important causal relationships (Morton, 1999). We know that consumers do not literally use the mathematical formulas found in microeconomics texts when making decisions, but these formulas do represent features of real world decision making in an analytically tractable way. In applying microeconomic theory to the real world we need to keep in mind that it ignores some things which will sometimes be relevant – as has become increasingly clear in the heuristics and biases literature and various findings in behavioural economics – but microeconomic theory is an extremely useful abstraction because it picks out some relevant features of how people make decisions and abstracts them in a simple and highly predictive way.

Bennett and Friedman's objection is not completely beside the point, then. We should not demand that Caplan as a political theorist explain precisely how people make decisions and include such complexity in his formal model, but a theory with no relationship to how people actually make decisions will generally be lacking in an explanatory sense and would require strong empirical support to prove its worth as a predictive device. The psychological foundations of rational irrationality are therefore important.

Caplan makes it clear that his model is consistent with a variety of psychological interpretations (Caplan, 2007, pp. 125–131). The most literal psychological interpretation of the model is that individuals choose between truth and falsehood while in some sense knowing all along what is really true. This decision process, the plausibility of which Caplan does not seem to accept but thinks is 'underrated,' is the one attacked by Bennett and Friedman. Caplan emphasises that the

psychological process underpinning rational irrationality should be seen as tacit and offers a more plausible interpretation in which individuals remain irrational on topics which seem inconsequential while keeping a lookout for errors likely to be materially costly: 'There is no need to posit that people start with a clear perception of the truth, then throw it away. The only requirement is that rationality remain on "standby," ready to activate when error is dangerous' (Caplan, 2007, p. 126).

Even this model is clearly not intended as a literal description of the steps people go through. As a rational choice model, rational irrationality attempts to capture meaningful causal relationships in the real world – what Dennett (1991) calls 'real patterns.' In evaluating Caplan's argument we should not ask whether it makes false assumptions – all models do – but whether it reveals causal relationships not immediately visible. Drawing on dual process theories of cognition, the remainder of this paper argues that it does.

2.3. Dual process theory

Caplan's conception of rationality as a faculty which is on standby for important questions is consistent with the framework of dual process theory, which is widely accepted in psychology. Dual process theories in general distinguish between two broad types of cognitive process: the automatic and effortless 'system 1' and the conscious and effortful 'system 2.' While dual process theories come in a variety of flavours, I here outline a 'default-intervention' (J. Evans, 2007, p. 109) model in which system 1 automatically uses associations and simple heuristics to suggest answers to system 2, which can endorse, modify, or reject these answers and will be called on to answer any questions system 1 finds beyond its ability (D. T. Gilbert, 1999; Kahneman & Frederick, 2002; Kahneman, 2011; Stanovich, 1999).

While these processes are not strictly divided into two mental subsystems, I will here follow Kahneman (2011) in writing of 'system 1' and 'system 2' as mental subsystems rather than abstract collections of processes. This simplifies discussion, though it should be kept in mind that statements like 'system 1 provides an intuitive answer' are shorthand for statements like 'some mental process which does not make use of working memory automatically produces an answer.'

System 1 is, in Kahneman's (2011, p. 79) words, 'a machine for jumping to conclusions.' It uses associations and simple heuristics to reach plausible conclusions. When asked to make a judgement or decision, an intuitive answer often comes to mind automatically and without mental effort. When asked to

evaluate '2 + 2' or asked 'are you thirsty?' an answer automatically and effortlessly presents itself. The defining characteristic of system 1 is that is does not require working memory. As such, it tends to produce answers quickly and has a high capacity. System 1 tends to work unconsciously and often uses associations between concepts and simple heuristics to reach conclusions.

A basic tool of system 1 is 'attribute substitution.' When system 1 faces a difficult question it is unable to answer, it will often substitute a related but distinct question it is capable of answering. Kahneman and Frederick (2002, p. 56) suggest that there are three general purpose heuristics falling under the broad category of attribute substitution: the representativeness, availability, and affect heuristics. Each of these heuristics will generally be useful in reaching fast and frugal judgements and decisions, but each can produce bias when their application is not properly supervised by system 2.

The representativeness heuristic is best illustrated by the classic 'Linda' problem of the heuristics and biases literature (Tversky & Kahneman, 1983). Participants in an experiment are given a description of a fictional person:

> Linda is 31 years old, single, outspoken and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations.

They are then asked to rate the likelihood of various propositions being true:

> Linda is a teacher in elementary school.
>
> Linda works in a bookstore and takes Yoga classes.
>
> Linda is active in the feminist movement. (*F*)
>
> Linda is a psychiatric social worker.
>
> Linda is a member of the League of Women Voters.
>
> Linda is a bank teller. (*T*)
>
> Linda is an insurance salesperson.

> Linda is a bank teller and is active in the feminist movement. (*T&F*)

Since the bank tellers active in the feminist movement are a subset of bank tellers, *T&F* cannot be more likely than *T*. An individual rating *T&F* as more likely than *T* commits the conjunction fallacy, treating a subset of an event as more likely than its superset. However, the description of Linda is designed to resemble the stereotypical feminist more than the stereotypical bank teller, and this prompts most people to rate *T&F* as more likely than *T*. 89% of those without statistical training committed the conjunction fallacy on the Linda problem. Statistically sophisticated subjects (doctoral students in decision science) performed slightly better but error rates remained at 85%. Even when the complexity of the problem is reduced to a stark and transparent choice between *T* and *T&F*, 85% of respondents commit the fallacy. Framing the problem in ways which emphasised the fact that group *T&F* is a subset of *T*, including providing a clear and valid argument for the greater likelihood of *T*,[38] reduced the proportion of subjects committing the error but never brought it below 57%. The bias revealed by this question is quite pronounced and robust.

The standard interpretation of the results is the representativeness heuristic: the substitution of the question 'How representative of this group's membership is Linda?' for the one actually asked. Kahneman and Tversky asked a separate group to rate the representativeness of Linda as a member of the groups and found an almost perfect correlation (.98) between these responses and probability judgments. System 1 does not have the tools to answer questions of probability theory but does have strong associations between individual traits and group membership which suggest that Linda is more like the typical feminist bank teller than the typical bank teller. The substitution of probability for similarity need not lead to outright incoherence as it does in the Linda case, and the representativeness heuristic may bias our thinking in more subtle ways. People routinely ignore base rates when making probability judgements, scope when evaluating environmental interventions, and duration when evaluating the unpleasantness of a painful episode. For the vast majority of Kahneman and Tversky's experimental subjects in the Linda problem, system 1's intuitive answer to the wrong question was endorsed by system 2. Similarly, those asked various other questions which should be

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[38] 'Linda is more likely to be a bank teller than she is to be a feminist bank teller, because every feminist bank teller is a bank teller, but some women bank tellers are not feminists, and Linda could be one of them' (Tversky & Kahneman, 1983, p. 299).

extension-sensitive will intuitively make scope-insensitive judgements. When system 2 does not intervene this can produce systematic and predictable biases (Kahneman & Frederick, 2002, pp. 73–81).

The availability heuristic involves judging likelihood or frequency based on the cognitive availability of examples (Tversky & Kahneman, 1973). When asked whether there are more English words starting with K or X, we intuitively search for K words and X words, find members of the former category much more available and conclude that there are in fact more words in the English language whose first letter is K words than those whose first letter is X. Like other system 1 heuristics, availability is generally an efficient and useful way of making fairly good judgements, since availability is highly correlated with frequency or probability. Reliance on this heuristic can lead to bias when there are factors affecting availability independently of frequency or probability. When asked whether more English words have K as their first or third letter, we find it much easier to think of first-letter K words than third-letter K words. This is due to our search algorithm rather than the real frequency of the two categories, however, and in this case system 1 produces an incorrect answer. Despite the fact that there are more third-letter K words, a large majority of people rate first-letter K words as more common (Tversky & Kahneman, 1973, pp. 211–212). Similarly, the fact that murders and motor accidents are reported in news and discussed more often than suicides and strokes makes the former events more available than the latter and biases risk assessment (Kahneman, 2011, Chapter 13).

The affect heuristic is used when people use their general evaluation of a stimulus as a guide to judgement and choice (Slovic, Finucane, Peters, & MacGregor, 2007; Slovic et al., 2002). In attribute substitution terms, questions such as 'should I choose *X* or *Y*?' are replaced by questions such as 'which option provokes the most positive affective response?' A number of experimental studies have shown that affective associations can influence judgment and choices. Exposing people to an image a smiling face for 1/250th second before another stimulus will persistently increase their evaluation of that stimulus despite the positive priming of the smiling face being too brief for recognition (Winkielman, Zajonc, & Schwarz, 1997). The most interesting application of the affect heuristic has been to risk perception. A number of studies have shown that perceptions of risk depend on feelings of fear, and that perceptions of risks and benefits are negatively correlated. People rate dreaded events as riskier, exaggerate risks when perceived benefits are low, and

exaggerate benefits when perceived risks are low (Fischhoff, Slovic, Lichtenstein, Read, & Combs, 1978; Loewenstein, Weber, Hsee, & Welch, 2001).

While each of these heuristics economises on decision making costs and produces decent answers in most situations, they do result in systematic biases which could potentially be removed by more complicated decision rules. This becomes apparent when we consider the effect of normatively-irrelevant contextual factors on judgements and decisions. Arbitrary numbers which we know to be unrelated to the question at hand influence numerical responses, and framing questions can influence answers (Kahneman, 2011; Tversky & Kahneman, 1974, 1981; Tversky & Simonson, 1993).

In dual process theories, the role of system 2 is to monitor the output of system 1 and override it when error is detected, as well as to tackle any problems for which system 1 has no answer at all. This monitoring is far from perfect, however. System 2 will often to endorse system 1's intuitive judgements even when a small amount of cognitive effort would reveal that a mistake has been made (Kahneman & Frederick, 2002; Kahneman, 2011, Chapter 3). Kahneman and Frederick (2002, p. 58) provide the following puzzle as an example: 'A bat and ball cost $1.10 in total. The bat costs $1 more than the ball. How much does the ball cost?' Most people will initially report an intuitive judgment that the ball costs 10 cents, though this answer is obviously mistaken when take the time to check the intuitive result. System 2 will normally, but not always, catch this type of system 1 error.

The degree of scrutiny intuitive judgements face depends in part on the subjective feeling of confidence in the judgement. When making judgements in a familiar situation and we have a strong intuition consistent with the available evidence, subjective confidence will be high and system 2 will tend to endorse system 2 judgements. Given the associative and heuristic nature of system 1, this produces systematic bias. Confidence depends on cognitive ease, and this can be manipulated quite simply in order to influence judgement. Alter et al (2007), for example, conduct a series of experiments in which decreasing cognitive ease reduced subjective confidence in judgements and led to greater system 2 reasoning and superior performance on questions where intuitive answers are wrong but easily correctable by system 2. Questions printed in harder to read type or answered while furrowing one's brow (as opposed to puffing one's cheeks) created a sense of cognitive unease and encouraged system 2 intervention. Confidence also depends on associational coherence. When asked how many of each animal Moses

took on the ark, many will confidently give two as the answer without noticing the substitution of Moses for Noah. Since Moses makes associational sense in the context of the question, system 1 provides a confident answer for the question it thinks it is being asked and system 2 trusts this judgement. If asked how many animals Plato took on the ark, the trickiness of the question would be more obvious (Morewedge & Kahneman, 2010).

System 2 also has its own set of heuristics used to simplify decisions but also giving rise to bias (Kahneman & Frederick, 2002, pp. 59–60). Humans are bad intuitive statisticians, at least when information is presented in the form of proportions rather than natural frequencies. Even when consciously attempting to estimate probabilities, people systematically err by ignoring or underweighting base rates (Bar-Hillel, 1980). Moreover, people use a 'positive test strategy' when assessing the truth of hypotheses. Searching for evidence which supports rather than undermines a hypothesis leads to confirmation bias (Klayman & Ha, 1987; Klayman, 1995). More generally, people seem to engage in motivated reasoning. Rather than impartially seeking the truth, people will gather, evaluate, and interpret information in order to reach conclusions valued independently of truth. Information which threatens an individual's identity may be rejected, while a weak argument in favour of a pet theory may be evaluated as favourable (Kunda, 1990).

In summary, dual process theory suggests that judgment and decisions are made by two distinct classes of cognitive operation. The first is automatic, associative, and cognitively free. The second is deliberate, inferential, and cognitively costly. There is much experimental support for a default-interventionist view in which system 1 intuitively forms judgements and assessments of confidence in those judgements, and system 2 chooses whether to accept the judgement as true, modify it in some way, or reject it as false. The level of scrutiny depends on a number of factors, including the degree of confidence system 1 assigns to the judgement.

2.4. Rational irrationality as a dual process model

While the structure of Caplan's model and some of his remarks make it appear that voters must consciously weigh the costs and benefits of irrationality, it is easy to interpret the model in default-interventionist terms. Indeed, this reading seems to be what Caplan actually has in mind given his claim that rational irrationality requires that 'rationality remain on "standby," ready to engage when error is dangerous' (Caplan, 2007, p. 126).

Rather than thinking about the psychological benefits of irrationality, however, it makes more sense to think of rationality as involving costs. The notion of preferences over beliefs could be interpreted to cover the affect heuristic, but the biases stemming from representation and availability, which seem potentially important to politics, make no sense in this context. In the default-interventionist framework, system 1 automatically produces an intuitive response without the need for conscious thought or the utilisation of working memory. This can be thought of as a free but fallible answer which, if system 2 chooses to intervene, will be replaced with a more reliable one at some cost.

On this understanding, individuals are not balancing instrumental and psychological preferences, but seeking to maximise their instrumental utility, which depends negatively on the level of cognitive effort expended in judgement and decision making. Intuitive answers might suggest themselves due to priming, the representativeness heuristic, or the affect heuristic. Thinking in these terms allows for a more general consideration of bias and rational correction in alternative choice contexts than is possible when focusing on affect as preference.

An agent does not face the choice between accepting a false belief and a true one, but between subjecting an intuitive judgement to rational scrutiny. An intuitive answer comes for free, and the agent needs to consider whether to engage in costly evaluation of that judgement. The benefits of reflection consists of the extra utility the agent would gain by making superior choices and the costs are defined by the cognitive effort expended during deliberation.

We can model this in expected utility terms. For simplicity, we assume that cognitive costs, the stakes of a choice, and the reliability of the heuristic are known quantities and that rational reflection is infallible. Let $E(R_i)$ be the expected utility of subjecting intuitive judgement i to scrutiny, $U(X)$ be the utility of choice X, c_i be the cognitive cost of rationality evaluating i, and p_i be the probability that the intuitive judgement is correct.

An agent is asked to choose between two options A and B, knowing that one option is instrumentally better than the other by a specified amount but not knowing which is which. An intuitive answer a with some probability of being correct suggests itself, and the agent can either accept this answer of expend some mental effort to discover the correct answer with probability 1. Assuming risk-neutrality, the agent will maximise:

$$E(R_a) = (1\text{-}p_a)(|u(A) - u(B)|) - c_a$$

The expected value of rational reflection depends on three things: the reliability of intuitive judgement, the stakes of the decision, and the costs of rationality. Now consider how this calculus changes for a collective choice with the probability of pivotality of α. The stakes of the choice (i.e. the absolute value of $u(A) - u(B)$) must be multiplied by α, giving:

$$E(R_a) = (1\text{-}p_a)(|u(A) - u(B)|)\alpha - c_a$$

The benefits of rational reflection here depend strongly on α, while the costs remain the same regardless of the chances of pivotality. If we assume that α is very close to zero, the first term in this equation will become small even for decisions which are very important at the aggregate level and for which our intuitions are highly unreliable. For judgements with non-trivial costs of cognition, then, we should generally expect the expected value of rational reflection to be negative.

This approach, I believe, captures the essential features of Caplan's rational irrationality argument in a way consistent with dual process theory. Being a model, it leaves out many things and could potentially benefit from including some of these, as I will discuss in the conclusion. It does, however, provide a simple representation of some potentially interesting causal relationships and produces testable empirical predictions. Moreover, it is consistent with what we know about the way humans actually make judgements and decisions.

2.5.   Incentives and epistemic rationality

The question of whether incentives *do* in fact remove biases is, of course, an empirical one. Unfortunately, empirical evaluation is complicated by a number of factors, and the extant literature does not offer simple and conclusive answers. Camerer and Hogarth's (1999, p. 8) summary remains apt: 'The studies show that the effects of incentives are mixed and complicated. The extreme positions, that incentives make no difference at all, or always eliminate persistent irrationalities, are false.'

The questions we need to be asking in order to empirically evaluate Caplan's model are whether and to what extent voters fall prey to biases they would avoid if given an individual choice. These questions have not been asked, though a number of more general findings are relevant. If individuals in general are unresponsive to incentives when it comes to overcoming bias, Caplan's model becomes much less

plausible. Further, the distinction between a decisive low-stakes choice and a large number collective choice with large consequences may not be as similar in psychological terms as expected utility theory would lead us to believe. We know that folk probability theory often produces some odd results, and some of these might lead us to wonder whether voters give electoral politics more weight than it deserves in rational choice terms.

At the risk of tautology, we can in general claim that individuals will partially or fully overcome their biases when they have the ability and motivation to do so. The rational irrationality model restricts its attention to a subset of motivation – extrinsic, instrumental incentives. We could interpret Caplan's model in dual process terms as claiming that low-cost decisions are made using cheap but fallible type 1 processes while more costly and accurate type 2 processes remain on standby for high-stakes decisions. A number of experimental economic studies have sought to determine whether and when financial incentives improve performance on judgement, decision making, and problem solving tasks. While this literature is too large to review here (See instead Camerer & Hogarth, 1999; Smith & Walker, 1993a; Smith, 2008, pp. 173–181), the general answer to the question of whether incentives increase rationality is a resounding 'it depends.' Fortunately, we do have some idea of what it depends on, and the general patterns in the literature tell us something about the plausibility of the rational irrationality model.

Firstly, the difficulty of the task at hand influences the power of incentives. As Tversky and Kahneman (1986, p. S274) point out, '[i]ncentives do not operate by magic: they work by focusing attention and by prolonging deliberation.' If an accurate judgement or a normative decision is beyond the cognitive capacity of the individual, we should not expect incentives to improve performance. On the other hand, individuals will often perform optimally on very simple tasks even when incentives are absent. Humans often appear to have an intrinsic motivation to answer questions correctly and make decisions optimally. Camerer and Hogarth (1999, p. 22) refer to these factors as 'floor' and 'ceiling' effects: when tasks are too easy or too difficult, incentives should not be expected to have a major effect on performance.

Secondly, the effect of incentives seems to be mediated by their effect on cognitive effort. While this may seem obvious, the point is important and easy to overlook. Incentives do not work by removing the biases of system 1 but by tightening system 2's supervision of intuitive judgment. The effect of incentives on cognitive

effort has been physically measured via pupil dilation (Kahneman & Peavler, 1969) and brain imaging (Farrell, Goh, & White, 2012). The mediating effect of effort means that incentives will be more powerful in tasks where performance depends strongly on effort, such as memory tasks, probability judgements which require attention to multiple cues, and other conceptually simple problems requiring some level of focus but no complex inferential reasoning (Libby & Lipe, 1992).

Thirdly, there are important interactions between incentives and experience in the task at hand. Repetition provides opportunities for learning from feedback and may improve performance independently of incentives. For some tasks, repetition seems to be a strong substitute for incentives. According to Smith and Walker (1993b), for example, one round of experience in an auction game has a similar effect to a 10-fold increase in incentive. Jamal and Sunder (1991) find that incentives increased the performance of inexperienced subjects but had no effect on experienced ones, meaning that learning perfectly substituted for incentives in this case. Incentives and repetition can often work together to improve performance, however. Incentives may prompt greater attention to feedback and more careful application of learned strategies. J. Lee (2007) reviews experimental studies with repetition and incentives and finds that, using the experiments reviewed by Camerer and Hogarth (1999) as a baseline, incentives make a difference more frequently with repetition. Shanks et al (2002) consider the effects of incentives and performance feedback on probability matching, finding that each factor contributes to optimal performance. Payoffs only improved performance in later trials, however: participants needed to learn how to play, and monetary incentives encouraged them to do it better.

These general findings neither support nor undermine Caplan's model of rational irrationality in any serious way. To consider whether voters are likely to make suboptimal judgments and decisions they would avoid if given greater incentives, we need to think about the difficulty of optimal political choice (is it above the relevant 'floor' and below the relevant 'ceiling?'), its responsiveness to effort, and the potential interactions with the learning environment of democracy. It is easy to identify relevant mechanisms which make electoral choice more or less likely responsive to incentives – perceptions of civic duty might provide strong intrinsic motivation, electoral choices are too infrequent and the relevant outcomes affected by too many other factors for meaningful feedback – but problem is that there are so many countervailing forces and so much disagreement about their importance that firm conclusions are difficult.

There are, however, a few pieces of empirical work which have a more direct bearing on the relevance of the rational irrationality model. Since Caplan's analysis is so firmly based on the affect heuristic, an interesting question is whether bias stemming from this system 1 process is responsive to incentives. First of all, we know that the affect heuristic can withstand incentives for its avoidance at least some of the time (Bateman, Dent, Peters, Slovic, & Starmer, 2007, pp. 376–377). The most direct and compelling test of the idea that incentives can induce system 2 thinking comes from an unpublished paper by Farrell et al (2012), which uses an experimental design and functional magnetic resonance imaging (fMRI) to determine the extent to which financial incentives are able to shift focus in a decision making task from affective response to consequential reasoning. Participants were asked to choose between alternative investment projects proposed by hypothetical colleagues. The options varied in terms of the financial desirability of the investment, the affective valence of colleague, and the type of contract which governed reward. Financial desirability was manipulated straightforwardly by altering risk and expected value. Affect was manipulated by providing positive or negative affect-laden descriptions of the colleagues along with a name and photograph. Incentives were varied by providing participants a flat fee for the first set of choices and a performance-based reward structure for the second. Some decisions involved choices between options with unfamiliar colleagues (neutral affect), while others paired affect-laden colleagues with neutral ones. In the latter case, the decisions were structured such that the affectively-preferred choice was financially inferior to the alternative.

For both incentivised and unincentivised choices, the introduction of an affect-laden option increases activity in areas of the brain associated with emotion and produced a bias towards non-normative decisions relative to choices without affective valence. Incentives did not have a significant effect on performance when affect was absent. This can be explained by the ease of the decisions, with over 95% of decisions in neutral choices being normative. Incentivised participants also showed more activity in brain areas associated with analytic reasoning, however, and the bias induced by affect was reduced. For affect-laden decisions, performance-based pay increased the proportion of normative responses from 66.2% to 82.7%. Incentives reduced the bias caused by the affect heuristic, but did not eliminate it altogether, and unincentivised neutral choices were superior to incentivised but affective ones.

Another question is whether people see voting as a low-stakes choice. To an economist's ear, that question sounds absurd – in expected value terms the stakes must surely be trivial. We know that people have odd intuitive attitudes towards low probability events, however. In particular, people often overweight extremely low-probability events and lump all unlikely events into the same category of 'probably not going to happen.' People might know that their vote is unlikely to make a difference but give the possibility of pivotality undue weight in their decisions. On the other hand, people may see remote possibilities as sufficiently close to zero that they treat them as impossible (Camerer & Kunreuther, 1989; Kunreuther et al., 2002; G. F. Loewenstein et al., 2001). The evidence on this question has focused on attitudes towards risks such as natural disasters and terrorist attacks. Since framing can have such a strong impact on intuitive probability judgement, it is difficult to draw any conclusions from this literature on whether voters are likely to overestimate or underestimate their chances of pivotality, and if so what the magnitude of this effect might be. Experimental studies in politics have shown that people do make different choices in collective and individual contexts, though these have not considered epistemic rationality (Cummings, Elliott, Harrison, & Murphy, 1997; Fischer, 1996; Shayo & Harel, 2012).

Finally, there is some evidence that political beliefs are subject to bias from the affect heuristic and that this bias can be reduced by incentives, though the evidence on the latter question is much more limited. A number of experiments have shown that people will seek and interpret information in ways which support their political attitudes, and political judgements can be manipulated by priming and framing effects (Druckman, 2001; Lodge & Taber, 2000; Taber, Lodge, & Glathar, 2001; Taber & Lodge, 2006). Two recent experimental studies show that small monetary incentives can reduce partisan bias in factual survey questions (Bullock, Gerber, Hill, & Huber, 2013; Krupnikov, Levine, Lupia, & Prior, 2006).[39]

2.6.   Conclusion

The psychological framework of dual process theory provides a strong psychological foundation for the rational irrationality hypothesis and adequately

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[39] It should be noted that these authors interpret their results as showing that partisan bias is not sincere. This is a possible interpretation, but a dual process interpretation is more plausible given our other psychological knowledge and introspective evidence which suggests partisans really do disagree on matters of fact. See also Prior and Lupia (2008) on the effect of incentives and learning opportunities on survey measurements of political knowledge.

responds to accusations of incoherence levelled by Bennett and Friedman. Moreover, the evidence which does exist provides strong but qualified support for several of Caplan's key claims. People do make judgements and decisions based on gut-level responses, and emotional factors do have an impact on choice. These biases can in the right circumstances be overcome by material incentives, which increase the cognitive effort people devote to finding the correct answer. Although these findings are evidence for Caplan's hypothesis in a Bayesian sense, they are far from conclusive and a number of unanswered questions remain. The literature clearly shows that incentives are neither necessary nor sufficient for rationality. Voters may be intrinsically motivated to make rational political judgments without incentives. Alternatively, the biases which plague voting decisions may be so deeply ingrained and impervious to conscious correction that decisive choices would be just as irrational. Another possibility is that voters radically overestimate their chance of deciding an election and consequently devote more effort to political choice than they 'should' on rational choice grounds.

The dual process literature also suggests a number of factors which could be added to Caplan's model in order to increase its predictive power. The most important of these, I would suggest, is learning. Experimental studies have shown that repetition and meaningful feedback can improve rationality and interact with incentives. Elections are infrequent, policy consequences temporally remote, and it's difficult to find evidence of what would have happened had the other guy won. Democracy may fail not simply because it provides inadequate incentives, but because it provides inadequate incentives and poor feedback. Further, learning is not simply an automatic response to feedback, but often a conscious choice. Camerer and Hogarth argue that a narrow focus on the mental 'labour' required for rational decision making – as in Smith and Walker's cognitive cost model and my interpretation of Caplan here – neglects the fact that individuals may make long-term investments in cognitive capital. If someone expects to make a series of important probability judgments in the future, they might find it reasonable to investigate ways of improving their statistical reasoning and make investments such as learning Bayes' rule or taking an introductory course in applied statistics. Such decisions will be responsive to incentives, but they cannot be picked up by lab experiments as they are currently designed. If incentivised people in the real world invest in capital in order to make better choices with less cognitive labour, the laboratory evidence we have will tend to underestimate the power of incentives.

Taking this broader view of the institutional determinant of rationality would, it seems to me, strengthens Caplan's critique of democracy. Joseph Schumpeter's (2003, p. 262) claim that 'the typical citizen drops down to a lower level of mental performance as soon as he enters the political field' is often cited as a precursor to rational irrationality. Indeed, Schumpeter did point to lack of individual responsibility as encouraging irrationality. Equally important for Schumpeter, however, was familiarity. In their everyday lives individuals are 'subject to the salutary and rationalizing influence of favorable and unfavorable experience' (Schumpeter, 2003, p. 258). Many consumer choices may be biased by various irrationalities, but these can be eliminated by prolonged experimentation. Democracy provides weaker opportunities for learning: 'Many decisions of fateful importance are of a nature that makes it impossible for the public to experiment with them at its leisure and at moderate cost' (Schumpeter, 2003, p. 263).

Caplan builds on half of Schumpeter's claim but neglects the other half. This does not invalidate the rational irrationality model. As I have argued in this paper, Caplan identifies an interesting and plausible causal mechanism and models it in a parsimonious way and should not be criticised for leaving out other relevant factors. Schumpeter's early insight and recent findings by psychologists and experimental economists suggest that incentives and feedback are both important to rational decision making, with important interactions existing between them.

3. Exit and the Epistemic Quality of Voice

Abstract: *The relationship between exit and voice as responses to dissatisfaction with public policy and public services has been much discussed in academic literature and policy debates. These discussions have focused on the effect of exit options on the quantity of citizen voice and its effectiveness in influencing decisions. The epistemic quality of voice, on the other hand, has received much less attention. This paper uses rational choice theory to argue that public sector exit options can lead to more informed and less biased expressions of voice. Whereas the political knowledge required to make collective voice decisions is a public good which is underprovided by individuals, exit decisions provide sharper epistemic incentives. To the extent that the knowledge gathered as part of an exit decision is available to citizens for collective voice, exit will enhance the epistemic competence of citizens and, in the right institutional context, contribute to public sector performance.*

3.1.   Introduction

Since Albert Hirschman's (1970) influential analysis in *Exit, Voice, and Loyalty*, there has been a great deal of theoretical, empirical, and policy debate on the question of whether exit supports or undermines collective voice as an instrument for change in organisations, markets, and polities (Dowding et al., 2000). Hirschman's central insight was that individuals with exit options may have little incentive to voice their concerns. Since the most vocal are often the first to leave when given the chance, exit options can reduce the *quantity* of voice and force those left behind to suffer in relative silence (Hirschman, 1970, Chapters 4–5). On the other hand, exit options allow for credible threats and give individuals a stronger bargaining position *vis-à-vis* organisations. Consumers in a competitive market may not use voice very often, but producers have strong incentives to listen to what consumers want. In this sense, exit options increase the *effectiveness* of voice (Gehlbach, 2006; Hirschman, 1970, pp. 82–86; Sørensen, 1997).Thus, we seem to have a tradeoff between the quantity and effectiveness of voice. Exit options may discourage individuals from voicing while encouraging organisations to listen. The net effect on service quality depends on a number of factors, including organisational incentives and the distribution of exit options.

Democratic government is most commonly associated with collective voice in the form of voting, protest, and advocacy. Exit, however, is also a powerful factor in

the public sector. As Warren (2011) argues, democracies are necessarily monopoly providers of public services ostensibly disciplined by collective voice but in fact also relying on exit options to augment the power and mitigate the problems of voice, enabling more meaningful individual action and creating incentives for responsiveness. The relationship between exit and voice is important for liberal and democratic theory.

Moreover, a number of practical policy debates depend on this question. The extent to which citizens are helped or harmed by market and quasi-market mechanisms, for example, depends on the power of exit to give citizen-consumers what they want (Dowding & John, 2009, 2011). Some worry that increasing choice in this way can disempower many citizens by allowing the rich to opt out public services and take no further interest in their quality (Barnes & Prior, 1995; Hirschman, 1970, pp. 45–46; Labaree, 2000). Others insist that choice promotes democratic accountability and participatory decision making (Le Grand, 2007; Warren, 2011). Questions of federalism and subsidiarity also depend on the relationships between exit and voice. Some have argued that a decentralised system of competing jurisdictions gives governors the information and incentives required to promote citizens' interests (G. Brennan & Buchanan, 1980; Tiebout, 1956). On the other hand, jurisdictional exit has been argued to circumvent democracy by preventing large-scale collective action (Cai & Treisman, 2004; H. Sinn, 2003).

The focus of these debates has been on how exit options affect the quantity and the effectiveness of voice. We want citizens to voice their concerns and we want government agents to listen. For voice to drive improvement, however, those exercising it need to be at least minimally informed and rational about the shortcomings of the status quo and the possibilities for improvement. From an instrumental point of view, a high quantity of effective voice is only valuable insofar as it is of reasonable epistemic *quality*.

The effect of exit options on the epistemic quality of voice has been seriously understudied, though there are a few notable exceptions. Hirschman considered voice a skill subject to deterioration if not used, arguing that substitutability of exit and voice meant that '[t]he presence of the exit alternative can therefore tend to *atrophy the development of the art of voice*' (Hirschman, 1970, p. 43 emphasis in original). More recently, advocates of school choice have argued that exit options encourage parents to engage deliberatively in their children's education and force schools to provide venues for such deliberation (Mintrom, 2003). Generally, exit

options lower the individual threshold for individual influence and encourages organisations to uncover and respond to individuals' informed and rational preferences (Warren, 2011, pp. 692–694). Eichenberger (1994, p. 411) suggests in passing that jurisdictional exit options in a federal system will mitigate problems of rational ignorance by encouraging information acquisition. This paper generalises Eichenberger's insight by arguing from a rational choice perspective that exit options more broadly can increase the epistemic quality of voice by providing stronger incentives for individuals to gather information and rationally update their beliefs.[40]

The argument of this paper is based on a comparison of *individual* exit and *collective* voice. All actions are ultimately taken by individuals, but the distinction here is between situations in which individuals use exit to individually and decisively change their circumstances and those in which individuals use voice in an attempt to influence public policy or the general operating procedures of a public organisation. When a voter casts a ballot or a protestor raises a banner, they are using voice to contribute to a collective choice rather than making an individually decisive choice. Voters and protestors recognise that they are one voice among many and do not expect to be decisive (Dowding & John, 2012, p. 46). Voice may also be exercised individually, as when the consumer of a public service expresses some specific grievance about how they have been treated or a citizen requests a pothole in front of their house be filled (Dowding & John, 2012, p. 45). Individual voice of this type is no doubt common, but it differs conceptually from collective voice and will be set aside for the purposes of this paper.

The epistemic quality of collective voice is a public good which will tend to be underprovided on a voluntary basis. Individuals face the full costs of gathering and processing information but receive only a small portion of the benefits, which are shared by all members of society. From a social perspective, this is a problem. Each individual has an incentive to free ride on the knowledge of others, avoiding the costs of becoming informed while hoping that others will be more diligent. Since everyone faces the same incentive, political knowledge will be under-

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[40] Decentralisation of the type which normally increases exit options may improve the epistemic quality of voice through another mechanism as well. As the 'yardstick competition' literature has suggested, geographic decentralisation might provide performance measures which voters can use to hold representatives to account (Salmon, 1987). More generally, economists of the Austrian school have emphasised the informational role of markets (Hayek, 1945; Kirzner, 1973). Exit-enabling quasi-markets in public services could serve a similar informational role quite apart from the incentive effects discussed here.

produced relative to the socially optimal level. All members of society would be better off if they could credibly agree to make better collective decisions, but it is individually rational for each individual to free ride. The costs and benefits of exit decisions, on the other hand, fall primarily on those making the decisions. Without the gap between the social and private benefits of knowledge, individual choices will tend to be more well-informed and rational than collective choices, other things equal.

If individuals gather information and rationally weigh up the options when making an individual exit decision, the knowledge they have acquired will be available for later choices. When there is overlap in the information required for individual rationality in exit and voice decisions, exit options will increase the epistemic quality of voice by providing individuals with a sounder set of background beliefs. If citizens are more informed and the agents of government are responsive to voice, exit options will increase the quality of governance as judged by individual citizens.

3.2. Epistemic quality in institutional context

In rational choice theory, decisions are a function of preferences, beliefs, and opportunities (Elster, 1986). Each individual has a preference function which ranks alternative states of the world from best to worst and a set of beliefs about how each available action will influence the actual state of the world. Given an individual's preferences and beliefs, rational choice theory assumes that agents choose whichever option is expected to bring about the most desirable state of the world. On this reading, rational choice theory is about *instrumental* rationality – the relationship between means and ends. *Epistemic* rationality – the extent to which beliefs are responsive to the available evidence – is another matter. Those with wildly inaccurate beliefs may consistently act against their own best interests, but their behaviour is amenable to rational choice analysis as long as they are rational in an instrumental sense (Hindmoor, 2006, pp. 183–189).

The primary dependent variable in my argument is the epistemic quality of collective voice decisions. Conceptually, the epistemic quality of any decision can be defined by the extent to which it is in accord with the decision an individual would have made given full epistemic rationality – that is, given perfect motivation and cognitive ability to gather, process, and integrate all information relevant to the decision. This definition takes preferences and instrumental rationality as given and considers only the *ex ante* accuracy of beliefs given the available information.

There is an important distinction here between the cognitive process of decision making and the substantive outcome of that process (Simon, 1955, 1978). The process of decision making involves the gathering of information, the updating of beliefs, and the evaluation of competing values. In a mechanical sense, epistemic rationality is a feature of the cognitive process of decision making. Epistemic quality as I define it here, on the other hand, is a feature of choices as outcomes. I, like other rational choice theorists, am interested in the substantive rationality of decisions actually made rather than the procedural rationality of the decision making process, though the former is obviously causally reliant on the latter. Decisions made with a high degree of procedural rationality will tend to be of high epistemic quality. It should also be noted here that individual rationality – whether in a procedural or substantive sense – does not guarantee that individual action will be effective in accomplishing its goals. Given uncertainty or imperfect information, *ex ante* rational decisions may turn out to be suboptimal *ex post*. The influence or effect of a substantive choice needs to be kept conceptually distinct from its rationality.

While procedural rationality is always imperfect in the real world, many actual decisions may be of perfect epistemic quality by the above definition. For discrete choices such as which candidate to vote for in an election, an imperfectly reliable decision making process may produce the correct answer as judged by the individual's preferences. As long as the resulting decision is correct, we can say that it is of perfect epistemic quality. When decisions do deviate from perfection, they do so by degree. For continuous decisions such as what level of military spending to support, the answer may depart from epistemic perfection by a few percent or a few orders of magnitude, and we would say that decisions based on the former are of higher epistemic quality than those based on the latter. In discrete choice situations, choosing a close second is an epistemically better decision than choosing a distant fifth choice, though neither is perfect.

Some individuals will tend to be more rational than others in particular domains of choice. A voter with an accurate model of the world or a sense of civic duty strong enough to encourage careful deliberation will have a high degree of *dispositional* procedural rationality and, in virtue of generally making high quality decisions, can be considered more *epistemically competent* in the domain of democratic choice. Epistemic competence in this sense depends on the background beliefs, individual motivation and competence, and various features of the institutional environment such as the availability of information and the material consequences of epistemic

failure. Epistemic competence is not a constitutional attribute of individual people – though individual traits may have a large impact – but an attribute of a particular individual in a particular decision making context.

Empirically measuring epistemic quality is difficult, but not impossible. One fruitful approach to measuring epistemic quality is the 'enlightened preferences' approach in political science. This approach attempts to adjust political preferences for epistemic quality by asking what voters or opinion poll respondents would choose if they had a higher level of political knowledge. Hypothetical 'fully informed' political preferences are assumed to depend on a finite set of fundamental social, economic, and demographic variables. Since individuals identical on the relevant dimensions should have the same political preferences, differences can be attributed to differences in political information. An individual's expressed preferences can be compared against their enlightened preferences – the predicted preferences of an otherwise identical individual with perfect information – as a measure of epistemic quality (Althaus, 2003; Bartels, 1996; Delli Carpini & Keeter, 1996). While this empirical approach has its limitations and does not measure epistemic quality precisely as defined here, it shows that measurement of certain aspects of epistemic quality is possible and provides a useful proxy.

Epistemic rationality is not an axiom of rational choice theory, but it is an important element of much applied work. If beliefs bear no relationship to reality whatsoever it will be very difficult to construct predictive models and choice will have no normative weight. Fortunately, there will often be strong incentives for individuals to be at least somewhat epistemically rational. False beliefs will tend to result in choices which do not satisfy the agent's preferences. If individuals recognise that their beliefs are fallible and that mistaken beliefs can be costly in terms of preference satisfaction, there will be an incentive for individuals to update their beliefs by gathering information and rationally evaluating the evidence. Instrumentally rational actors will often try to be epistemically rational.

No meaningful decision is ever made with complete information and comprehensive rational reflection, however. Gathering information takes time and effort which could be spent elsewhere, and the value of information needs to be weighed against these costs (Howard, 1966; Stigler, 1961). Likewise, it takes time and cognitive effort to rationally integrate new information into one's belief system. These are real costs and it will often be instrumentally rational to rely on imperfect heuristics which economise on cognitive resources (Gigerenzer &

Goldstein, 1996; Simon, 1955). In addition to the opportunity costs of information search and rational deliberation, people seem to find it intrinsically costly to change certain types of beliefs. The psychological literature shows that people will often engage in motivated reasoning in order to reach desirable conclusions. When people have a particular answer in mind, they may selectively expose themselves to information likely to support it (Kunda, 1990; Taber & Lodge, 2006). Individuals may be biased in order to confirm existing beliefs (Nickerson, 1998), affirm identity (Chaiken, Giner-Sorolla, & Chen, 1996), avoid perceived inconsistency (J. Cooper, 2007; Festinger, 1957), or indulge evolved biases (Caplan, 2007).

Instrumentally rational agents will seek to update their beliefs when the expected benefits of greater rationality exceed the costs, and these benefits will depend on the importance of choices made on the basis of the belief at hand. Some ill-founded beliefs will be instrumentally 'cheap' to hold in the sense that they will have little or no effect on behaviour or preference satisfaction. A belief that there is a teapot orbiting the Sun between Earth and Mars will generally not influence any goal-directed actions and there will be no incentive to rationally update this belief. A false belief that lower-tier investors in pyramid schemes can expect large returns, on the other hand, is potentially very costly and the incentives for information search and rational evaluation will be much stronger here. Other things equal, high-stakes decisions will prompt a greater degree of information search and rational evaluation of the evidence than low-stakes decisions.

The claim here is not that instrumentally rational agents never question their own beliefs unless there's something in it for them. Truth may be valued for its own sake, but truth does not have lexical priority over other concerns. Since rationality is costly and resources are scare, beliefs of practical importance will be more accurate than those less relevant to our wellbeing, other things equal.

Democratic decisions often have enormous consequences. The decision facing any particular citizen, however, is not a decisive choice among alternatives but a contribution to a collective choice. Consider the position of an individual voter. A single vote only matters in an electoral sense when it makes or breaks a tie, and this will be very unlikely in any real world election. Gelman et al (2009), for example, estimate that the average voter in the 2008 US Presidential election had a 1 in 60 million chance of pivotality. In smaller elections the odds will be better, but the historical record shows that pivotal votes are rare even in small local elections (Mulligan & Hunter, 2003). A single vote might have other instrumental effects

such as marginally strengthening a political mandate or signalling the growth of a movement (Fowler & Smirnov, 2007; Mackie, 2010; Stigler, 1972), but such effects do not undermine the central logic of the collective action: individual voters and advocates capture only a small portion of benefits of informed voice while paying the full cost. The politically ignorant cannot be excluded from the public good of an informed electorate and will tend to free-ride on the political knowledge of others. Since everyone shares the incentive to free-ride, the public good of an informed electorate will be underprovided.

As Downs (1957) argued, the insignificance of a single vote combined with the costliness of information will prompt voters to remain 'rationally ignorant' about the merits of competing policies and candidates. Moreover, the low-cost nature of democratic voice provides little incentive for careful and impartial evaluation of information. Even with a wealth of reliable information, rational voter choice would require that individuals update their beliefs in response to this information, which potentially gives rise to psychological and cognitive costs. Most obviously, rational deliberation requires cognitive effort and voters may rely on simple cues such as candidate ideology rather than carefully evaluating the pros and cons of competing platforms. Caplan (2007) argues that individuals have preferences over their own beliefs, with evolution equipping us with cognitive tendencies useful in our evolutionary history but misleading today. Individuals will cling to their biased beliefs unless given practical reason to seek the truth. Individual choices often provide such incentives, while the low stakes of democratic voice mean that biases can be fully indulged.

While rational ignorance and motivated reasoning are potentially present in all decision making situations, there is reason to think the effect will be stronger for low-stakes decisions. A number studies in experimental economics have found that subjects behave more rationally when given a monetary incentive to do so. The introduction of performance-based monetary rewards into an otherwise hypothetical choice situation improves performance, and performance increases with the rate at which correct decisions are rewarded, though it should be noted that mistakes and biases often remain even in high stakes experiments. Relatively flat reward functions with a unique optimal choice are less effective at inducing instrumental rationality than those which strongly punish suboptimal choice (Camerer & Hogarth, 1999; Smith & Walker, 1993a; Smith, 2008, pp. 173–181). There is also evidence that monetary payoffs reduce political biases. Partisan differences on factual survey questions are reduced by modest monetary incentives

to answer correctly (Bullock et al., 2013; Krupnikov et al., 2006; Prior & Lupia, 2008).

The strongest evidence that exit options are made on sounder epistemic ground than collective voice decisions comes research on school choice. A randomised field experiment in 1972-1977 randomly introduced decentralisation and voucher-like choice mechanisms into California school districts, giving some parents exit options denied to an otherwise similar set of parents acting as a control group. Parents given exit options accumulated more accurate information over time relative to the control group, with knowledge quickly degrading as the voucher system came to an end (Bridge & Blackman, 1978, Chapter 3). A more recent study in Washington DC which randomly awarded voucher-like K-12 scholarships to around half of 1500 eligible low-income applicants found a similar pattern. Parents of the children who did receive the scholarship had more accurate information as measured by factual survey questions over the size of schools and classes compared to the parents of children not chosen by the lottery (Kisida & Wolf, 2010). Schneider et al's (2000) non-experimental investigation provides a more detailed picture of when choice increases the accuracy of beliefs. While choice seemed to generally improve parents' basic knowledge of their children's education, such as the name of their principal, it improved the accuracy of more detailed knowledge only in some geographic areas. Of more practical importance is the finding by Hanushek et al (2007) that exit decisions were more strongly related to objective measures of school performance in charter school systems than in conventional public systems with weaker exit options.

Parents without exit options in schooling are asked to participate in collective decisions by using their voice in the ballot box, the public square, and in the local mechanisms of educational accountability. Without individual exit options, though, the information on which such voice decisions are based is of lower epistemic quality than it otherwise would be. This, I claim, is a general problem of collective voice. If voters are ignorant of or systematically biased about the causes of economic and social problems, the desirability of policies, and the power of various offices to influence outcomes, public opinion will not converge on optimal policy solutions. If candidates seek election, they will be forced to pander to the misguided opinions of the electorate and democratic outcomes will not necessarily be in the best interests of citizens (Caplan, 2007; Somin, 2004). Other forms of collective voice such as protest and advocacy can also be expected to suffer from rational ignorance and rational irrationality, since they face the same collective

action problems as voting (Dowding et al., 2000, pp. 472–473; Dowding & John, 2012, pp. 15–18). While altruism, a truth-seeking disposition, or a sense of duty might improve the epistemic quality of collective decisions to some extent, it seems reasonable to conclude that the low-stakes nature of collective voice reduces epistemic quality below the level we would expect of otherwise identical individual decisions.

The argument here is not based on a complaint that collective voice is undesirable, though that is certainly a reasonable interpretation of the evidence, but on the recognition that it could be improved by stronger epistemic incentives. If the monopolistic nature of mass democracy is a necessary part of collective action, individual exit cannot completely replace collective voice. Increasing the epistemic quality of voice would increase the desirability of democratic accountability and potentially improve the quality of public services.

If an individual is dissatisfied with government in some way, their main alternative to voice is exit (Hirschman, 1970). Broadly speaking, an individual can exit a law, policy, or public-service in one of five ways. *Private exit* occurs when citizens opt out of a public service in favour of some private sector alternative (Dowding & John, 2012, pp. 39–40). *Internal exit* occurs when citizens choose among multiple public providers within the same jurisdiction or catchment area (Dowding & John, 2012, pp. 38–39). *Tiebout exit* occurs when citizens are able to move among jurisdictions or catchment areas with different bundles of taxes, policies, and public services (Dowding & John, 2012, pp. 40–43). *Complete exit* occurs when citizens completely forgo the service in question without seeking a substitute (Dowding & John, 2012, pp. 37–38). *Entrepreneurial exit* occurs when an individual leaves a public provider but create their own alternative rather than seeking existing public or private sector alternatives (Gofen, 2012).

In all five forms of exit, individuals or households are decisive over some change in the services they receive, the taxes they pay, or the rules which govern their behaviour. Compared to collective decisions in which choices are tied to outcomes only with some low probability, this provides stronger incentives and increases expected epistemic quality. It is important to note that actual exit is generally not required for exit options to increase political knowledge. Those with exit options will gather knowledge in order to make an informed choice, but the best choice may well be to remain with the current provider.

3.3.   Exit options and the quality of voice

I have argued that exit decisions tend to be epistemically sounder than collective voice decisions. The beliefs updated as part of an individual decision do not revert to their previous state once action has been taken, however. The cognitive environment of present decisions is partly determined by the institutional environment of past decisions. Since the personal costs of being wrong are much greater for exit than for collective voice decisions, beliefs are more likely to be updated during the former. This will make the exit decision itself procedurally more rational, and it will also increase the accuracy of the decision maker's beliefs. Future collective voice decisions will continue to have low individual stakes, but more accurate beliefs increase procedural rationality in a dispositional sense and produce domain-specific improvements to epistemic competence, increasing the expected epistemic quality of decisions at any level of cost/benefit. Since collective voice decisions will often have low expected epistemic quality due to the free rider problem, there will be wide scope for exit options to improve the epistemic quality of such decisions. If the mechanisms of democratic communication and accountability are working effectively, this can be expected to increase the quality of public services as judged by citizen preferences.

Consider a parent unsure about the appropriate ratio of teachers to students in public schools. The value of a marginal teacher relative to other educational inputs is far from clear, and forming an accurate belief on whether public schools should increase or decrease class sizes would be no trivial matter. The collective voice decision facing a voter or vocal parent provides weak epistemic incentives and procedural rationality will tend to be low. If the school system provided exit options in the form of educational vouchers or charter schools, however, the epistemic incentives would be stronger and beliefs about the effect of teacher-student ratios on educational outcomes sounder. This sounder set of beliefs will influence not only the immediate exit decision, but also subsequent voice decisions as the parents transfers their experience in individual exit to collective voice decisions.

This mechanism is potentially relevant wherever individual exit and collective voice co-exists. Patient choice in healthcare might encourage a more careful and impartial evaluation of the relative importance of various dimensions of service quality, quasi-markets in pensions or social insurance might reveal more reasoned and sincere preferences regarding risk and time preference, and private alternatives

to public broadcasting, transportation, or postal services might shift public opinion about the best way to provide such services. Moving across jurisdictional boundaries might also provide transferrable knowledge. The option of moving to a district which has privatised rubbish collection or a country which emphasises communitarian values over individual liberty might lead to more well-grounded views of the efficiency of privatisation and the value of community.

My claim depends, of course, on the existence of beliefs relevant to both exit and voice decisions. Some might deny that such overlap exists to any significant extent. Consider the situation facing an individual concerned mostly with economic performance in their jurisdiction of residence. There are a number of institutional factors which influence economic performance, and an optimal collective voice decision will require careful consideration of numerous theoretical and empirical factors. When making a Tiebout exit decision, however, an individual can for the most part ignore the policies which contribute to economic performance and look to actual economic outcomes as measured by income per capita, unemployment, or whatever other factors they deem important. In this case, the informational requirements of a well-informed Tiebout choice are entirely distinct from those of a well-informed collective voice decision over precisely the same set of policies. This means that epistemically competent Tiebout foot-voters will remain incompetent in the voting booth. This problem is also relevant to internal and private exit choices. In schools, for example, there may be reliable measures of student outcomes which make any consideration of educational inputs such as class sizes and teacher compensation unnecessary. If parents adopt the rule of sending their children to high-performing schools without considering why those schools perform well, well-informed exit decisions in this area are unlikely to influence voting decisions on educational policy.

For many policy decisions, however, inputs will be more visible and subject to evaluation than outputs. In some cases, it is the future path of outcomes which is important. There is a well-recognised problem with retirement policy, for example, which has yet to make itself fully felt. If different jurisdictions are dealing with this problem differently, a reasoned choice between the options requires prediction of the likely effects of such policies. This normally cannot be achieved by looking at current or past outcomes. In other cases, the desired outcomes are not easily measurable and evaluation of inputs will be a more efficient means of determining the best option. The outcomes of allowing same-sex marriage, for example, are not easily distinguished from the policy decision. A thoughtful decision of whether one

wants to live in a society which allows same-sex marriage will require the same information in exit and voice decisions.

Most policies and service inputs will produce a mix of desirable and undesirable effects which are not easily commensurable. Exit decisions will force trade-offs to be made explicit. If some economic policy is known to increase economic growth while also decreasing an individual's short-term employment prospects, an epistemically rational choice will require an evaluation of the relative normative weight given to growth and employment, as well as consideration of risk and time preferences. The optimal decision cannot be deduced from outcomes, even if those outcomes are objectively measurable and more reliable than any evaluation of policy alternatives. The degree of informational overlap will depend entirely on the choices under consideration. The argument here is not that increasing exit options will always increase the soundness of some collective use of voice. Rather, it is that exit options provide strong incentives for knowledge generation and that knowledge so accumulated will in some cases improve the epistemic soundness of electoral decisions.

The value of high quality voice also depends on its quantity and effectiveness – if voice is absent or ineffective, its quality is irrelevant. It may be that those with exit options make no effort to voice their concerns or that those running the exited organisation make no effort to consider the wishes of exiting individuals. This depends crucially on the institutional environment. If exit is institutionalised in a way which forces organisations to seek out the opinions of consumers and integrate this information into their decisions, high-quality voice will be a powerful force in improving service quality.

Hirschman's (1970, Chapter 4) study of Nigerian railways provides an example of exit reducing the quantity of voice and ultimately undermining service quality, the case of charter schools seems to represent a case in which exit increases the quality of voice without seriously reducing (and plausibly even increasing) the quantity and effectiveness of voice and improving service quality (Mintrom, 2003). The difference here seems to be one of institutions. Charter schools face plausible threats of reduced funding and even closure if they lose too many students; Nigerian railways did not. Without organisational incentives to curtail exit or actively seek high-quality voice, the epistemic quality of the individual decisions between road and rail was irrelevant to the performance of the railways.

When organisations have no incentive to respond to voice, individual consumers have no incentive to voice their concerns. Exit options in the right institutional environment might increase the quantity of voice by increasing its effectiveness and thus its expected value as a strategy (though it should be noted that collective action remains a problem), and by encouraging organisations to endogenously increase the individual incentives for collective voice in order to improve their ability to curtail exit. Organisations in competitive environments not only find ways of decreasing the cost of voice, but often materially reward feedback. The lesson here is that exit options must be considered in relation to institutional design more generally. Some institutional constellations encourage individuals to combine exit and voice as complements while others encourage substitution. 'Noisy exit' can be a powerful force, since it combines the communicative bandwidth of voice and the credible signal of exit (Barry, 1974; Dowding et al., 2000, pp. 473–475; Laver, 1976). For this to be effective, however, exit options must work in a way which incentivises organisational response (Warren, 2011).

The epistemic quality of a decision depends not only on the potential benefits of rationality, but also the costs. If information is costly to gather, evaluate, and process, decisions may remain seriously suboptimal despite strong incentives. Exit options increase the demand for meaningful and accessible information, and the supply of such information will have important effects on the quality of both exit and voice decisions. If public service providers have incentives to attract or retain consumers and there are information asymmetries, competition potentially produces a situation in which poorly-performing organisations mislead consumers and choice is uninformed (Akerlof, 1970; Spence, 1977). This produces a (quasi-) market failure which could potentially be corrected by government intervention in the form of quality assurance or the public provision of information (Beales, Craswell, & Salop, 1981). The demand for useful and impartial information, however, creates incentives for its supply (Klein, 2002), and it is unclear *a priori* whether government intervention will be welfare-enhancing (Demsetz, 1969). Information asymmetries in competitive contexts can be mitigated by costly signalling (Spence, 1973), reputation (Klein, 1997), and information intermediaries (Rose, 1999).

By providing stronger incentives, exit options increase the empirical quality of particular choices as well as the empirical competence of individuals as rational consumers and citizens. A more accurate view of the world is a general-purpose tool which can be expected to increase the quality of future decisions. With a

sounder set of beliefs and the right institutional environment, citizens will be more able to use voice to demand genuine improvements in service quality and hold government agents to account for failures. The political pressures facing political candidates and government agencies would more accurately represent the real interests of citizens and this can be expected to increase the quality of public services. Each exit decision will produce knowledge only applicable to a small subset of possible future voice decisions, but the collective effect of an institutional environment which routinely enables exit decisions might be large.

3.4. Conclusion

There has been much discussion of the potential effects of exit on the quantity and effectiveness of voice. Meanwhile, the potential effect of exit on the epistemic quality of voice has received by less attention. This relative neglect cannot be due to a lack of importance or relevance: the questions of how to increase voter competence (Bennett, 2006) and how much individual choice should be introduced into public policy (Dowding & John, 2009) have been prominent in recent academic and policy discussions. The question of whether, and under what conditions, exit options develop or atrophy the art of voice is an important one, yet despite a handful of notable individual contributions it has not been the object of sustained research and we are far from a compelling general answer.

The epistemic competence of the electorate is a public good which tends to be underprovided when people act individually. While it is instrumentally rational at the individual level to neglect the strong epistemic requirements of an epistemically rational voting decision, such rational ignorance and irrationality have serious effects at the societal level. When individuals are given decisive choices over the laws which bind them, however, they have stronger incentives to update their beliefs and become more competent decision makers. As exit increases epistemic competence, it has positive spill-over effects for the epistemic quality of collective voice.

The strength and scope of this connection between exit and voice has yet to be determined. If the informational overlap between exit and voice is small, the mechanism I propose may have little effect. More theoretical and empirical work is required, but there are a number of challenges. Epistemic competence is not easily measured in the wild. Real-world political issues are by definition contested and the researcher cannot simply posit their preferred option as the correct one. The enlightened preference approach is a promising avenue for field research, though

finding unbiased cases for comparison is difficult. Experimental methods are another promising avenue, since they allow the researcher to tightly control the decision situation such that epistemic quality is easily defined and exit options can be exogenously varied. While field research will be essential in determining the real-world scope of the effect, experimental research would clarify the conditions required for exit to improve the quality of voice and suggest avenues for real-world investigation.

In addition to the existence and generality of the mechanism I propose, it is important to consider the institutional requirements for exit to increase epistemic competence and drive improvement in public policy and public services. Effective democratic control, organisational incentives, and factors facilitating the production of information are all important here. Moreover, the institutional requirements for high quality voice are connected to the requirements of effective and high quantity voice in complex ways which require context-sensitive elaboration. With the right organisational incentives and capabilities, citizen exit options will force government agencies to provide venues for low-cost expressions of voice, to provide credible sources of information regarding service quality, and listen to the preferences of individuals. In cases like this, exit options would be beneficial for the quantity, quality, and effectiveness of voice. In other institutional environments, the agents of government may be unwilling or unable to seek or respond to high-quality voice. If citizens know this, they may make their exit decisions in silence even though their epistemic competence would lead to high quality act of voice. Here, exit options might increase the quality of voice while leaving effectiveness unchanged and reducing quantity.

If exit options are indeed capable of increasing the epistemic quality of voice, the potential implications for public policy are enormous. Most obviously, the value of choice in public policy would be greater than previously recognised. Introducing exit options in public services would not only give citizens greater choice and potentially increase efficiency; it would also increase civic competence and democratic accountability. Moreover, it would mean that exit and voice should not be seen as alternatives so much as complements. Increasing exit options does not render voice irrelevant but augments its power as a tool of democratic communication and constraint.

4. Strategic and Expressive Voting

Abstract: *Critics of the expressive model of voter choice have pointed to the existence of strategic voting as evidence that voters are at least partially instrumentally motivated. This paper argues that strategic voting in the relevant sense is consistent with entirely expressive political motivation. Building on an earlier suggestion by Geoff Brennan, I model voters as expressively valuing ideology and cunning. This model predicts strategic voting without instrumental preferences entering the voter's calculus at all. I also suggest that expressive preferences for strategic optimality can be usefully analysed in terms of dispositional choice.*

4.1. Introduction

Expressive models of voter choice hold that people make voting choices partially or entirely on the basis of non-instrumental preferences (G. Brennan & Hamlin, 2000, Chapter 8; G. Brennan & Lomasky, 1993; Hamlin & Jennings, 2011). Since an individual vote will almost certainly fail to prove decisive, voters will focus on the satisfaction derived from participating in the democratic process and supporting one candidate or party over the other rather than on the practical implications of electoral results. This drives a wedge between choice and preference which complicates the normative case for democracy and calls into question the soundness of many rational choice models of politics.

Few would deny that voting does not have an expressive element, but what I will refer to as the expressive voting hypothesis is that instrumental concerns are entirely absent from democratic choice in large elections. This could be because the probability of pivotality is so small that voters treat it as if it is non-existent or because instrumental preferences are so small as to never prove decisive in the individual's calculus. The expressive voting hypothesis stands in opposition to the instrumental voting hypothesis and the hybrid voting hypothesis, which hold respectively that voting decisions are made entirely on instrumental grounds or on a mix of expressive and instrumental grounds.

A common objection to the expressive voting hypothesis is the existence of strategic voting (Christiano, 2004; Dowding, 2005; Mackie, 2011). If voters make choices based on their expressive preferences, the argument goes, they should always vote for their expressively most preferred candidate regardless of the

electoral context. An expressive voter in a plurality system should not be deterred from voting for a minor party due to a concern about wasting their vote. Expressive voters are not constrained by practical considerations and they should therefore express support for their preferred candidate regardless of how such a vote affects electoral outcomes.

This paper will argue that such claims are mistaken. Taking a broader view of expressive preference which allows expressive preferences over substantive ideological issues as well as procedural approaches to democracy, I provide a rational actor account of strategic voting under which the individual does not consult their instrumental preferences at all. In this narrow sense the paper is a response to the claims of inconsistency cited above. This builds on and formalises the argument made by Brennan (2008) that voters have an expressive preference for treating politics as 'serious business.'

In a broader sense this paper has tried to expand the analytic scope of dispositional choice by connecting it to the idea of expressive voting. These ideas are central elements of the emerging 'revisionist public choice theory' being spearheaded by Brennan and Hamlin (2008). There are already important connections between these ideas (Hamlin, 2006, pp. 9–10), and this paper builds on these to provide an expressive account of political dispositional choice. Taking this approach provides a more subtle understanding of expressive political preferences.

4.2. The strategic voting objection

Strategic voting occurs when an individual votes for a candidate other than their sincere preference in order to increase the likelihood of some relatively desired electoral outcome. Strategic voting is predicted by rational choice models of voter choice and has generated a great deal of concern in the design of electoral systems (Cox, 1997; Riker, 1982, Chapter 6). The most obvious example of strategic voting is an aversion to third-parties in plurality systems. Individuals who sincerely prefer minor parties will recognise that such parties have little chance of success and may rationally choose to vote for whichever of the main parties they prefer. Since this form of strategic voting is so simple and widespread it will be the focus of this paper.

Several critics of expressive voting theory have pointed to the existence of strategic voting as a decisive objection to the claim that instrumental concerns are an insignificant factor in electoral decision making. Dowding (2005, p. 453) claims

that voting cannot be entirely expressive, since 'if all one wanted was to express a preference then there would be no room for tactical voting and there is evidence that some vote strategically.' Christiano (2004, pp. 138–139) sees the absence of strategic voting as a central prediction of expressive voting theory and considers this empirically implausible. Mackie (2011, pp. 24–26) points to empirical evidence that voters are responsive to opportunity costs in their strategic decisions as inconsistent with expressive voting and claims that 'failure to explain strategic voting is a decisive test of the expressive theory' (Mackie, 2011, p. 25).

Brennan (2008, pp. 483–484) attempts to briefly address the challenge of strategic voting to expressive theory. Brennan claims that people see voting as 'serious business,' though this business is expressive rather than instrumental. The best way to express oneself politically may not be to support one's first choice. If there is a salient battle between the major centre left and centre right parties, a voter whose first choice is a minor far-right party might wish to express himself by throwing his support behind the centre-right party. A voter may see this as a more effective way of cheering for broadly right wing ideals or booing the left.[41] Moreover, we might expect such a result to be more likely in plurality systems, since the distinction between two major parties is more salient here than in proportional systems. Expressive voting *might* undermine Duverger's law, but we cannot claim that expressive theory implies this without making strong assumptions about prevailing expressive preferences.

Mackie responds that voters expressing seriousness will behave like instrumental voters and the behavioural predictions of expressive theory will need to be withdrawn. At the very least then, the existence of strategic voting makes expressive theory empirically meaningless (Mackie, 2011, p. 26). Mackie overstates his point here. For one thing, the veil of insignificance argument for non-instrumental benevolence in the voting booth is entirely consistent with politics as serious business but has empirical predictions different from those of instrumental voting theory. Nevertheless, he does have a point: if expressive preferences prompt people to vote as if they instrumentally motivated in many respects, the empirical and normative relevance of expressive theory is reduced.

The claim that expressive voters behave as if instrumentally motivated is, however, too general and misleading when taken at face value. We need to ask in what

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[41] Glazer (2008, p. 253) makes a similar point, noting that strategic-like voting may be the most effective way of pleasing or angering the relevant others.

respects politics as serious business prompts pseudo-instrumental behaviour. If expressive preferences only alter some forms of political behaviour, we need to ask how empirically and normatively important such forms of behaviour are.

This paper will argue that politics as serious business does make the expressive and instrumental accounts of voting indistinguishable when it comes to certain patterns of democratic choice while leaving vast areas potentially influenced by expressive concerns in empirically and normatively meaningful ways. A consideration of political behaviour from a dispositional perspective provides a framework for explaining the co-existence of expressive and instrumental concerns and resolving the apparent conflict between expressive theory and strategic voting.

4.3. The expressive value of cunning

Assume a one-dimensional spatial model of policy space, with possible party positions on *X* ranging from 0 (extreme left) to 1 (extreme right). An individual has an instrumentally ideal point in policy space given by X_i and an expressively ideal point in policy space given by Y_i, with instrumental and expressive preference functions being single-peaked and linearly decreasing with distance from the ideal point. In the 'unsophisticated' mixed model of voting, individual *i*'s expected utility from voting for party *P* is given by equation 4.1.

$$(4.1) \ E(P) = \alpha(1 - |X_i - X_P|)k + \beta(1 - |Y_i - X_P|)$$

k is the subjective probability of pivotality, α and β are exogenous parameters determining the strength of instrumental and expressive preferences over policy space respectively, and X_P is party *P*'s position in policy space. If voting is entirely expressive because *k*=0 or so close to it that indivisibilities in policy space always make instrumental preferences inframarginal, the first term of the above equation is rendered irrelevant and the expected value of a vote is given simply by the distance between the party and the voter's expressively ideal point. On this interpretation the voter would always vote for whichever party is closest to them ideologically, and the existence of strategic voting would indeed decisively show that voting is at least partially instrumental.

There is, however, another interpretation of an entirely expressive utility function which considers the possibility of an expressive preference for voting in sophisticated ways. Suppose that there are expressive benefits of playing the game of politics strategically. Casting votes on the basis of their expected effect on

policy outcomes may make one feel like a practical person, a canny political actor, or one who takes politics to be serious business. Analytically, we may suppose there is an expressive payoff to voting such that one's vote makes the largest subjectively defined contribution to minimising the ideological distance between the expressively ideal and actual policy. To recognise this expressive preference, we need to add a third term to the equation above.

$$(4.2) \quad E(P) = \alpha(1 - |X_i - X_P|)k + \beta(1 - |Y_i - X_P|) + \gamma(1 - |Y_i - X_P|)C_P$$

Here γ is an exogenous parameter defining the strength of the expressive preference for strategy and C_P is a subjectively defined measure of the contribution of a single vote to party P. This is, of course, related to the pivotality variable k, but it is distinct in that it is not a precise measure of probability but a rough estimation of how much the party needs votes. When there are real instrumental costs on the line people will make decisions based on probability estimates such as k; when only expressive preferences are at stake some broad consideration of electoral prospects will likely suffice if we want to know whether our vote is wasted in some imprecise sense.[42] The crucial distinction here is that the instrumental benefits are only secured if party P is elected while the expressive benefits of voting strategically are realised by the act of choice.[43] Instrumental voters would be interested only in the expected effect their vote has on electoral outcomes. Expressive voters are interested instead in the strategic optimality of the choice they make and need not consider the probability of pivotality *per se*.

This opens the possibility of quasi-strategic voting without instrumental preferences (i.e. X_i) coming into play at all. If we set k to zero and thus ignore the first term, there is a tradeoff between the direct and unsophisticated expressive preference for voting our expressive preferences and also a sophisticated

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[42] Another way of thinking about C_P would be as a transformation of k, with the transformation being motivated by an expressive preference for thinking of oneself as politically efficacious. If k is small but positive, the voter may recognise that their vote has virtually zero chance of being decisive but when making expressive choices treat the probability as much higher. I prefer the first interpretation of C_P as a mathematically distinct variable, since the common idea that voters are contributing to a collective decision even though they know none will be decisive does not intuitively seem like an exaggerated probability. Yet another possibility would be to replace C_P with k but insist that voters only care about which option has the highest expected value (i.e. which is the best choice) and do not discount the strategic superiority of the choice by the insignificance of the individual. On this interpretation, people see politics as a game and want to make the optimal moves. I find this intuitively appealing but I will stick with C_P for reasons of analytic clarity and simplicity.

[43] Individuals likely receive psychic payoffs from having their preferred political party win, but voting in order to increase the probability of these payoffs would be instrumental rather than expressive.

expressive preference for voting shrewdly. The inclusion of C_P makes a vote for a viable candidate more valuable than an obviously wasted one and if we define it in terms of instrumental effects on electoral outcomes it also raises the possibility of more complex forms of strategic voting.

Since my aim here is simply to show that voting can be strategic even when instrumental concerns are absent, a simple numerical example will suffice. Suppose voter 1 is a radical leftist on expressive grounds ($Y_1=0$) and there are three parties, one radically left-wing ($X_A=0$), one moderately left-wing ($X_B=.2$) and one moderately right wing ($X_C=.8$). Suppose further that $k=0$ and thus the first term of equations 4.1 and 4.2 is zero. On the unsophisticated expressive voting model of equation 1, there would be no room for strategic voting and voter 1 would vote for party A without any consideration of electoral prospects. On the sophisticated expressive model of equation 4.2, however, the voter needs to consider the perceived strategic value of voting for party A or B.

If, as is common in real world cases of extreme and moderate parties, party A has no realistic chance of gaining power but B and C are fairly evenly poised, the voter's subjectively-defined measure of C_A will be much lower than C_B. Suppose that $C_A=.001$ and $C_B=.5$. Further set β to 1 and γ to 2, meaning that the individual places greater weight on the expressive preference for strategy. Plugging these values into equation 4.2 (and ignoring the first term) we get $E(A) = 1(1 - 0) + 2(\frac{1-0}{1000}) = 1.002$ and $E(B) = 1(1 - 0.2) + 2(\frac{1-0.2}{2}) = 1.6$. The individual will vote strategically for party B even though she is ideologically closer to party A and instrumental preferences have been entirely ignored.

4.4. Ideologies as dispositions

The account of electoral choice presented above will no doubt strike many as implausible at a psychological level. The first and best response to such criticisms is always, in my view, to point out that models are meant to capture relevant causal mechanism rather than accurately describe psychological or social processes. I believe the expressive preference for cunning become more plausible when we consider it in dispositional terms, however.

Dispositions as understood by Brennan and Hamlin (1995, 2000, Chapters 3–4, 6; Hamlin, 2006) are durable traits or commitments which influence but do not necessarily determine choice. A person of altruistic disposition will tend to help people. A person of an analytic disposition will tend to think carefully and

objectively about questions of fact. Dispositions can encourage particular types of action and also particular modes of thought; they may be domain specific or general; and they may be more or less binding.

Dispositions shape future choices and they can to some extent be voluntarily chosen (G. Brennan & Hamlin, 2000, pp. 45–48). Such choice is not costless, of course, but with sustained effort and intentional environmental changes good habits can be developed and modes of thought and action which once seemed alien can become natural.[44] If dispositions can at some cost be rationally chosen, rational actors will seek to adopt dispositions which maximise their welfare in the long-run. A demonstrable commitment to honouring one's debts, for example, will make possible trades which would otherwise be undermined by the threat of *ex post* opportunism. A moral disposition in this case will give individuals a higher payoff than would case-by-case rational calculation (G. Brennan & Hamlin, 2000, Chapter 2).

Brennan and Hamlin (2000, pp. 48–49) suggest that moral dispositions will be important in politics due to the difficulty of overcoming agency problems in democracy, and Hamlin (2006, pp. 9–10) further argues that acting in accordance with one's disposition will be cheaper in collective choices. The argument here builds on those insights, suggesting that the adoption of a political disposition may itself be aimed at securing expressive, rather than instrumental, benefits. Just as we intrinsically value the performance of specific actions, we also intrinsically value the adoption of ideological dispositions. The standard argument for the dominance of expressive preferences in political choice also applies to the choice of political dispositions: For dispositions which condition behaviour generally or specifically in non-political contexts, instrumental preferences will tend to dominate. If our political dispositions have little effect on our material wellbeing, however, instrumental concerns can be discounted and only expressive preferences remain.

It is important to distinguish between two aspects of a political disposition, which I will call the ideological and the electoral. Ideological dispositions are composed of an individual's basic normative commitments about the role of the state and criteria for evaluating policy arguments. A socialist disposition will commit one to valuing equality of wealth very highly and might prompt a blanket rejection of neoclassical economic arguments as the ideological weapons of the capitalist class. In the model of electoral choice presented above, ideological dispositions will determine the

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[44] See Gauthier (1986) for an earlier rational choice account of dispositional choice.

expressively ideal point in policy space and the shape of the expressive preference function.

An ideological disposition can be combined with a variety of electoral dispositions which, taking the ideal point and ranking of alternatives as given, influence the way an individual will alter their voting behaviour based on electoral conditions. An idealist disposition will make individuals relatively unwilling to sacrifice their beliefs in order to support the lesser of two evils, while a strategic disposition will encourage strategic voting. In equation 4.2 above, electoral dispositions will determine the relative magnitude of β and γ and thus influence the relative expressive payoffs of sticking to one's ideological guns or voting strategically. Electoral dispositions are, compared to ideological ones, relatively free of content and instead focused on encouraging one mode of thought rather than another. They are for the most part what Hamlin (2006, p. 6) calls modal dispositions.

In any political culture, individuals will be faced with a menu of ideological choices. Americans have the choice of becoming a liberal or a conservative, though if they squint and read the fine print they may see one or two further options. Dispositional choice is not unconstrained, of course: we adopt dispositions in the context of other dispositions, beliefs, and preferences. Political beliefs are highly heritable (Settle, Dawes, & Fowler, 2009), suggesting that our parents have an important influence on our dispositional constitution through some combination of socialisation and genetics. Yet people do have patrial control over their own political dispositions: Teenagers rebel and views adapt over time. As long as we assume that people have some say over their own ideological commitments and respond to psychological and social incentives, the rational actor model is applicable.

When adopting a political disposition, rational actors will consider the long-term payoffs of the available alternatives. As suggested above, I want to distinguish between two dimensions of dispositional choice in politics, ideological and electoral. As before individuals have instrumental and expressive preferences, but now rather than voting on a single issue they are choosing a disposition to adopt based on the expected payoff from a long run of future political decisions.

A political disposition can be defined as a rule for evaluating electoral alternatives. The ideological component is given by the ideal point; the electoral component is given by the relative weight given to various factors. A partially or fully instrumental disposition is a possibility, but we are here interested in only

expressive dispositions. Following the notation above, a perfectly idealistic disposition under which the individual votes for whatever party is ideologically closest to them, choosing whichever P maximises $E(P) = 1 - |Y_i - X_P|$. A perfectly strategic voter will take full account of the electoral prospects in making a voting choice, maximising $E(P) = (1 - |Y_i - X_P|)C_P$. Between these two extremes various weights can be given to expressing sincere and sophisticated voting preferences, with the general method of evaluating alternatives given by a reduced version of equation 4.2 above, equation 4.3.

(4.3) $E(P) = \beta(1 - |Y_i - X_P|) + \gamma(1 - |Y_i - X_P|)C_P$

Individuals will adopt a disposition which varies the relative magnitude of β and γ based on the expressive value of idealism and cunning. Those with a relatively large γ will often vote strategically while those with lower values of γ will seldom do so. In choosing between idealistic and strategic dispositions individuals will consider the expected value of a series of expressive payoffs resulting from the future decisions made under each disposition. The expressive payoffs resulting from strategic voting are, of course, subjective and likely to vary by individual. There may also be interactions with ideological dispositions. A dispositional idealist defined as someone who values their ideal point very highly relative to the next best alternatives (G. Brennan & Hamlin, 2004) may find expressive complementarities between this substantive view and a high value of β.

If we consider political dispositions as influencing not simply voting choices but a range of political activity from conversations at the pub to the signing of petitions to the wearing of campaign badges, a strategic disposition appears more attractive. Individuals have many avenues for expressing their ideological preferences – their expressively ideal point – and if we think standard economic logic applies here the existence of such substitutes for sincere ideological voting will decrease the quantity demanded. In the dispositional terms above, the existence of other outlets would decrease the value of β. Strategic voters could express idealism in the pub by proclaiming the rightness of the extreme view while expressing seriousness and practicality in the voting booth by voting for the lesser of two evils, and this might be expected to create higher aggregate expressive payoff.

It is not my intention here to show that any significant proportion of voters *do* in fact adopt such an expressively strategic disposition, but it seems awfully plausible that they do. Politics is seen by the median citizen as serious business worthy of

some attention, yet the attention paid to political questions is often of a rather peculiar kind, focusing on political strategy rather than issues (Iyengar, Norpoth, & Hahn, 2004). When substantive issues are discussed debates do not seem to be aimed at truth. Voters seek new and other information which confirm rather than challenge their ideological preferences (Iyengar & Hahn, 2009; Taber et al., 2001; Taber & Lodge, 2006) and seem to have systematically biased beliefs as a result (Caplan, 2002, 2007). Disagreement over matters of fact is a fundamental part of political discourse, despite its questionable rationality (Aumann, 1976; Cowen & Hanson, 2004; Hanson, 2006). These findings are at odds with the instrumental account of voting.

Politics may be serious business, but the constraints of instrumental rationality seem to be stronger at the strategic level taking policy preferences as given, with policy positions themselves subjected to very little or plausibly even no instrumental deliberation. Politics is perhaps best seen as a game of strategy everyone agrees to play. To enjoy a game of chess we need to agree on rules, victory conditions, and norms of fair play. We act strategically within these constraints but at no point do we question why we are trying to force checkmate or why the black player dislikes the white pieces so strongly. The goals of players in a game of chess are taken as given and strategies are formulated within those non-instrumental constraints, and I suggest that this is often so with politics. People may often think strategically about how to advance socialist or libertarian or social democratic policy goals without subjecting the validity of those goals to instrumental scrutiny.

This defuses much of the apparent tension between expressive and strategic voting and suggests that expressive theory retains a great deal of empirical and normative import even if politics is taken as serious business. Voting choice could be motivated entirely by expressive concerns at both levels, but be empirically consistent with instrumental motivation only at the electoral level. This would indeed reduce the potential empirical implications of expressive theory, and many of the results of conventional rational choice theory might be upheld.

The demands of politics as serious business are more exacting at the electoral than the ideological level. The demonstration that third-party votes are 'wasted' in a plurality election is trivial and readily accepted by all reasonable people.[45] If we

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[45] Note, however, that votes wasted in a short term and strictly electoral sense might be valuable if victory margins affect government behaviour via a mandate effect or influence a

take ideological preferences as given, the demands of seriousness in a consequentialist sense are quite exacting here. If a person wants to express a serious consequentialist commitment to their ideological preferences, insincere voting will often be very obviously the only reasonable choice. More complex forms of strategic voting may take more complex chains of reasoning, but there are objective answers to how we should vote if we take party preferences as given. Ideological preferences, on the other hand, are not disciplined nearly as tightly. Inconsistent views can be objectively criticised, but in the absence of consensus on what the good life requires, the scope of plausibly serious ideological preferences is very wide indeed. Ideologies are webs of beliefs capable of accommodating uncomfortable evidence with only slight revisions (Quine, 1951). Dogmatists of all political persuasions are quite capable of appearing like doctrinaire fruitcakes to opponents and paragons of rationality to allies. Whether or not one believes there are objective grounds for answering moral and political questions, it is clear that no such grounds are currently effective in adjudicating ideological disputes.

The potential trade-offs between our expressive preferences over the seriousness and content of our choices, then, are likely to be less apparent at the ideological level than the electoral level of choice. Politics is serious business at both levels, but seriousness only seriously constrains electoral choice. This means that electoral choices will tend to be consistent with instrumental rationality when policy preferences are taken as given. Those preferences, however, might be formed on the basis of substantive expressive preferences untouched by the demands of politics as serious business.

This approach is capable of explaining strategic voting without recourse to instrumental preferences and can also account for the finding that the closeness of an election increases turnout (Blais, 2006, p. 119), since closeness will increase the value C_P for the major parties and thus increase the expressive value of a strategic vote.[46] The possibility of dispositional heterogeneity (G. Brennan & Hamlin, 2000, pp. 61–63) provides a rational choice explanation of widespread and persistent disagreement over factual matters in the political sphere.

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party's prospects in future elections (Fowler & Smirnov, 2007; Mackie, 2010; Stigler, 1972).

[46] It should also be noted that closeness may increase the salience of the election and thus increase the unsophisticated expressive value of voting.

4.5.   Conclusion

This paper has provided a rational actor account of voting choice which predicts strategic voting while remaining entirely expressive. This shows that Christiano, Dowding, and Mackie are mistaken in claiming that the existence of strategic voting is decisive proof that voting choices are motivated at least in part by instrumental factors. I have argued that an expressive preference for political cunning is capable of altering the expressive calculus of electoral decisions without in any way affecting the expressively-chosen ideological dispositions.

I have also tried to show that this account of expressive voting is empirically and normatively quite distinct from instrumental theory. Mackie's objection that saving expressive theory by positing a quasi-instrumental preference for treating politics as serious business renders it empirically meaningless can be rejected. There is an important respect in which the introduction of expressive preferences for strategy does bring the theory more in line with conventional rational choice predictions. If people are motivated by perceived strategic optimality of their choice expressive theory will follow instrumental theory in predicting electoral regularities such as Duverger's law.

The action for expressive theory is at the ideological level. Where instrumental accounts will predict that basic policy preferences will change in response to material conditions or new information, the expressive account continues to stress less transparent factors deriving from culture and psychology. If voting is entirely expressive, changes in material conditions will only affect voting behaviour via their effect on expressive preferences. Disentangling the effects is difficult in the real world, but the empirical predictions of the expressive model differ from instrumental or hybrid account even when we introduce expressive strategic preferences.

We have reasonable evidence from the field and the lab that expressive concerns do play a larger role in collective than individual choice (Cummings et al., 1997; Fischer, 1996; Hamlin & Jennings, 2011; Kan & Yang, 2001; Roback, 1986; Shayo & Harel, 2012; Sobel & Wagner, 2004). On the question of whether instrumental preferences are entirely ignored by voters in large real-world elections, however, there is simply no evidence one way or the other. Experimental work may be the most promising way forward empirically, since it allows tighter control of instrumental and expressive factors. Even more promising are experimental studies which use neural imaging to peek inside the heads of those making collective

choices. Neuroscientists can empirically distinguish between instrumental and emotional activity, and this could potentially provide an objective test of Brennan and Hamlin's (1998, p. 150) claim that voting is 'much more like cheering at a football match than it is like purchasing an asset portfolio.'[47] Such a test would be complicated by the existence of expressive strategic preferences, but a focus on what I have here called ideological choice should provide scope for unbiased testing of the expressive voting hypothesis.

The normative implications of the expressive theory are largely untouched by the introduction of an expressive preference for cunning. Ideological preferences over policy space – even if well behaved in a formal sense and strategically pursued by voters – may be seriously at odds with individuals' interests as defined by their 'true' preferences defined in terms of choices which would be made under conditions of individual decisiveness. This opens the possibility that unanimously chosen policies would be universally rejected by decisive decision makers (G. Brennan & Lomasky, 1984), that voters will use the ballot box to indulge spiteful or bigoted preferences (G. Brennan & Lomasky, 1989) and anger others (Glazer, 2008). On the other hand, expressive voting might encourage a more impartial view by allowing people to vote in line with their moral preferences (G. Brennan & Lomasky, 1985; Goodin & Roberts, 1975; Kliemt, 1986). The all-things-considered implication of expressive voting theory for our evaluation of democratic efficiency and the relative desirability of exit and voice are far from clear, but it *is* very clear that the theory *has* important normative implications. Adding a strategic element to the preference functions of the bigot, the altruist, or the fool does little to modify the normative importance of the existence of such characters for the evaluation of democracy.

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[47] A notable study which does not directly tackle the issue at stake here but has some interesting implications and suggests an empirical approach is Farrell et al (2012), which asks people to make hypothetical and consequential decisions while in a functional magnetic resonance imaging (fMRI) machine. The introduction of incentives to an otherwise hypothetical affect-laden choice situation increased activity in regions of the brain associated with rational deliberation and improved task performance (defined instrumentally) in cases where affect and self-interest pushed in opposite directions.

5. Children's Rights with Endogenous Fertility

Abstract: *This paper considers the value of children's rights laws as a means of protecting children from a hypothetical contractarian perspective. Laws protecting children from their parents have the unintended but predictable consequence of making child-rearing less desirable for some parents and probabilistically reducing the number of children born. Such laws therefore produce a trade-off between the expected wellbeing of actual and possible persons. I show that a possible child behind an appropriate veil of ignorance may rationally oppose laws which benefit some and harm no actual children.*

5.1.   Introduction

Parents have a great deal of power over their children, and this fact poses serious problems for liberal political theory and policy making in liberal democracies. Parents are given fairly wide scope to raise their children as they see fit, but liberal states routinely place limits on parental sovereignty in the name of children's rights (Archard, 2004). In many cases, concern for the welfare and autonomy of children conflicts with the values of non-liberal cultural groups. Christian scientists refusing life-saving medical treatment for their children (Hickey & Lyckholm, 2004), Old Order Amish refusing to educate their children beyond the eighth grade (Galston, 1995; Mazie, 2005), and Islamic cultures engaging in female circumcision (Nussbaum, 1999, Chapter 4) are examples of this conflict. In each of these cases, parents' religious beliefs are at odds with broadly-held liberal views of how children should be treated and debates have centred on the conflict between the tolerance of diversity and the protection of individual autonomy.

In a nonideal world, the appropriate distribution of rights depends not only on moral considerations narrowly construed, but also on the normatively-relevant second-order effects of such distributions.[48] This paper considers one such second-order effect of laws which restrict parental authority: reduced fertility. Parents not only decide how to treat their children, but also whether to have those children at all. These choices are not independent, and this complicates liberal justifications for children's rights laws. Parents – especially those belonging to illiberal cultural

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[48] On feasibility see Brennan and Hamlin (2009) and Gilabert and Lawford-Smith (2012). On non-ideal theory see Schmidtz (2011). On feasibility in the context of children's rights law, though of a different type than that discussed here, see Cowden (2011).

groups – have strong preferences over how their children are raised. Rational choice theories of fertility suggest that limiting parental sovereignty makes some parents less willing to have children. If children raised in illiberal communities have lives worth living and additional worthwhile lives are considered valuable, this is something liberal theorists and policymakers ought to consider.

Contractarianism provides a means of impartially considering the conflicting interests of many individuals. By asking what rational individuals would choose under epistemically and motivationally idealised conditions, contrarianism provides a simulation of impartial moral judgment beginning from individual self-interest (Buchanan & Lomasky, 1984; Harsanyi, 1953, 1955; Narveson, 2013; Rawls, 1971). This paper adopts a version of hypothetical contractarianism which considers hypothetical choice of a rational possible person behind a veil of ignorance. Following Harsanyi (1953, 1955) I assume Von Neumann-Morgenstern utility functions and assume that hypothetical contractors have perfect knowledge of how alternative options influence the welfare of individuals but complete uncertainty as to which individual they will be. Following Kavka (1975) I include possible persons whose existence depends on the choice at hand in the original position.

This approach allows us to consider the hypothetical exit behaviour of those children who in reality have neither exit options nor voice. A hypothetical possible child considering whether to support legislation designed to protect them from their parents will be influenced not simply by the value of such protections given that they do exist, but also the effect on their likelihood of being actualised. Such a perspective reveals that children's rights legislation, even if perfectly effective in making *actual* children better off, can be seen as bad for children in an abstract but normatively powerful sense.

I consider only the interests of potential children and ignore the preferences of parents. Though parents no doubt have moral standing here, I do this in order to focus on the central claim by children's rights advocates which I wish to question: that protective laws are good for children. In questioning this claim I make an argument which applies *a fortiori* to more comprehensive axiological analyses which consider the interests of parents as well as children.

While the argument here is strictly axiological and does not preclude overriding deontological considerations, I suggest that the previously neglected costs of children's rights I identify here are normatively relevant - i.e. they ought to be

given some consideration in policy debates over the appropriate level of parental sovereignty. Such debates might reasonably conclude that the benefits of some piece of children's rights law outweigh the costs or that there are deontological considerations which trump the interests of possible persons. My point is simply to show that some children's rights protections are less desirable than we would think if fertility were exogenous. It should also be noted that I take the moral significance of possible persons and the appropriateness of contractarianism for the question at hand as assumptions of this paper. While I find each of these assumptions reasonable and will have a few words to say in their support, I do not offer a rigorous defines of either proposition, since this would take far more space than is available here.[49]

5.2.   Axiological possibilism

Whenever we make a choice at time t among n meaningful and feasible options, we are destined to bring about one of n possible worlds at time $t+1$.[50] The outcome of some choices will affect the identity and number of persons who come to exist. If a person's existence depends on our choice we may call them a *contingent person*. A contingent person is one who exists in one or more, but not all, possible worlds. That is, a normal person whose existence is contingent rather than some invisible ghostly entity whose personhood is contingent. After our choice has been made and the consequences played out, some of these contingent persons will have been actualised. An *actual person* is one who exists in this (i.e. 'the real') world; a *nonactual possible person* is one who could have existed but does not. A *necessary person* is one who exists in all possible worlds, and along with contingent persons they form the group of *possible persons*. While the language of possible persons and possible worlds is sometimes interpreted as requiring strong and counterintuitive metaphysical assumptions, I here use these concepts simply as a means of counterfactual reasoning (Broome, 2004, pp. 14–15; Holtug, 2001, pp. 366–379).

Ordinary ethical behaviour requires that we ignore the interests of nonactual persons – there is little point in making tea for a person who might have existed but does not, and they do not mind when we step on their hypothetical toes. When we

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[49] On axiological possibilism, see Hare (2007) and Holtug (1999, 2001, 2012, Chapter 5). On contractarianism in general see Narveson (2013). On contractarianism with possible persons, see Kavka (1975).
[50] Of course, we cannot know precisely how our actions will play out and the choices of others will interact with others in bringing about the actual world. I here ignore such complications by making a strong *ceteris paribus* assumption.

make a choice which affects the number and identity of those who will come to exist, on the other hand, the distinction between actual and nonactual persons cannot in principle be made. At *t* there is simply no fact of the matter as to who exists at *t*+1, since the answer is contingent on the choice we make now. Facing this open future, impartiality requires that we consider the interests of all parties affected by our choice.

Many axiological systems subscribe to the person-affecting restriction, which holds that states of affairs can only be good or bad (or better or worse) insofar as they good or bad for one or more individuals. A person whose existence depends on our choice is in an obvious intuitive sense affected by it, though many insist that a welfare comparison of existence and non-existence is meaningless. When I consider whether to kick actual Alice in the shin, I am making a cross-world welfare comparison. If I choose to kick her, a possible world in which she has a sore shin, and perhaps a general sense of distrust, becomes actual. If I choose to contain my violent tendencies, an alternative possible world in which Alice remains pain-free and trusting is actualised. Most reasonable person-affecting axiologies will have no problem recognising that Alice is better off in the latter possible world – since her mental states are more pleasant, her preferences more satisfied, or her basic interests better advanced – and no especial logical difficulties arise.

When I make a choice which determines whether some possible future person exists, however, it is no longer so obvious that cross-world welfare comparisons make sense. If a person does not exist, they have no actual preferences, experiences, or interests. When asked to value non-existence against lives containing a mix of joy and frustration, one obvious response is to assign good things a positive value, bad things a negative value, and non-existence the neutral value of zero. Some have disputed the validity of this approach. Heyd claims that 'there is no way to compare the *amount* of suffering of states of actual people and the state of non-existence of these people. We should resist the temptation of assigning a zero-value to non-existence, thus making it quantitatively commensurable with either the positive or the negative net value of the lives of actual people' (Heyd, 1992, p. 113). Non-existent lives clearly have *no value*, but the claim that they have *zero value* is to inappropriately assign a definite value to something which cannot be evaluated, since there is no standard of evaluation without preferences or interests.

As Holtug (2001, pp. 364–383) shows, a response to the claim that non-existence cannot be evaluated without preferences or interests in the relevant world will depend somewhat on the axiological position adopted. If we hold an objective list or hedonic view of (person-affecting) value, there is no logical problem. Even if outcomes can only be evaluated insofar as they affect persons, the standard of evaluation (happiness, flourishing, etc.) is independent of any person's preference. That there is nobody to long for our existence in worlds from which we are absent presents no particular logical problem compared to ontological counterfactual statements. Similarly, if we take an object version of preferentialism – that individual preferences give external states of affairs such as pleasant mental states inherent value – we can similarly take a person's preference in a world in which they do exist as a standard of evaluation for worlds in which they do not. Heyd's objection is most plausible when interpreted on a preference-satisfaction theory of value. On this account, it is the coincidence of some preferred state of affairs and a preference regarding that state of affairs which creates value. So, in a world where Bob does not exist, the claim that existence would be good for Bob is parsed as 'Bob prefers that he would have existed, but that preference is not satisfied.' This clearly makes no sense, since there is no preference in that world to remain unsatisfied.

This interpretation of preference satisfaction is, I think, a mistaken one. We need not claim there is a preference in a world which remains unsatisfied to say that there is zero preference satisfaction in that world in a comparatively meaningful sense. We have an absence of a good thing, which is neutral. If in a world in which Bob exists and has a surplus of preference satisfactions, there is more preference satisfaction in this world than another world in which Bob does not exist, despite Bob having no preferences in the latter. A world in which a person has good things is better for that person than a world in which they do not, whether they are there to realise it or not. Only a preference-frustration account of value seems capable of grounding Heyd's objection. This is not only implausible, but also inconsistent with Heyd's general argument insofar as it implies that bringing a person into existence is practically always a bad thing, since everybody can expect some of their preferences to be frustrated (Holtug, 2001, pp. 380–383).[51]

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[51] It should be noted that some, most notably Benatar (2006), are willing to bite this bullet and claim that bringing people into existence is always blameworthy.

When we claim that a possible future person Bob would be benefitted (or harmed) by existence, we are claiming that it is better (or worse) for him that he exist than not. We need not assign any intrinsic value to life itself here. Rather, existence benefits a person insofar as it allows good things to accrue to them. Thus, existence benefits a person who thereafter lives a life worth living all things considered. By 'lives worth living' I mean lives in which good things outweigh bad things in the relevant sense, with worthiness defined by whatever axiology one holds (Parfit, 1984, pp. 257–258). The extent of the benefit or harm of existence depends on the balance of good or bad things.

Though the argument of this paper does not depend on the claim that non-existence has precisely zero value to a person, I do require that it is quantitatively commensurable with existence at various levels of welfare. Accepting non-existence as a natural zero point would allow us to construct a ratio scale of welfare. This is not necessary for our purposes, since we are interested in comparing only the *difference* in utility across possible worlds. The interval scale of Von Neumann–Morgenstern utility is therefore sufficient. We can arbitrarily assign non-existence the baseline value of zero, some possible life worth living the arbitrary value of one, and define the utility of other possible lives in terms of preference between uncertain prospects. If we set option x at zero and y at one, an individual indifferent between y with certainty and x or z with equal probability reveals herself to value z at 2 units of utility (Alchian, 1953; Von Neumann & Morgenstern, 1964). In this paper I will treat non-existence as having zero value, but it should be noted that this number has meaning only in comparison with the utility of other possible lives.

A possible person's wellbeing is determined by the sum of positive and negative utilities accruing to them throughout their existence. A nonactual person, of course, does not exist at all and thus accrues no positive or negative utilities – their welfare is zero in the very simple sense that nothing good or bad can happen to them. An actual person living a miserable life will have negative net utility and would be better off not having existing (i.e. is harmed by existence), while an actual person living a happy life will have positive net utility and would be worse off not having existed (i.e. is benefitted by existence). It makes no *practical* sense to claim that a nonactual person has been harmed or benefitted by non-existence once the actual persons have been sorted from the nonactual, but there is nothing logically

incoherent about such a claim when we consider benefits and harms as betterness relations between the relevant alternatives and assign non-existence the neutral welfare value of zero (Holtug, 2001, pp. 370–377). Moreover, such judgments are an essential component of practical hypothetical reasoning conducted *before* the relevant choice is made, since no distinction can be made between actual and nonactual persons at this point. When our choice determines which possible persons will become actual, there is no obvious basis for privileging one set of possible persons over another.

Axiologies which insist that only actual persons matter morally cannot guide action in a practical sense when the actualised population of persons is at stake. The alternative I adopt in this paper is to extend moral status to all possible persons, though there are other possibilities which it is worth briefly considering in order to see how axiological possibilism stacks up.[52] Although the idea that only actual people matter is intuitively appealing, many seem to have a stronger intuitive commitment to what McMahan (1981, 2009) calls 'the asymmetry.' Many want to claim that (1) we have moral reason *not* to bring about miserable lives (i.e. lives not worth living), and (2) we have *no* moral reason to bring about happy lives (i.e. lives worth living). McMahan recognises the intuitive appeal of these propositions but argues that they are difficult to maintain while holding a consistent version of the person-affecting restriction and retaining an action-guiding approach to moral theory. The claim that it is bad to bring a predictably miserable individual into existence requires that we admit impersonal or non-comparative value as normatively-relevant, while the claim that it is not good (or bad) to bring a predictably happy individual into existence is premised on the idea that impersonal and non-comparative value is non-existent or normatively-irrelevant. Treating costs and benefits asymmetrically does not solve this problem, since the desirable aspects of a normal happy life are required to 'cancel' the undesirable aspects and avoid the conclusion that it is bad to create any life which has any undesirable aspect. If we cannot distinguish between the gain of being born into a happy life and the loss of being born into a miserable one, a possible response is to reluctantly accept that the former is praiseworthy in order to say that the latter is blameworthy (Broome, 2004, 2005; Singer, 1993, pp. 103–105).

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[52] There are further possibilities I do not consider here, but as has been adequately established elsewhere these positions produce highly counterintuitive and sometimes inconsistent conclusions. Hare (2007) and Roberts (2010, pp. 60–69) show that 'actualist' approaches are unable to guide action, and Broome (2005) shows that acceptance of the claim that adding new and happy lives is morally neutral is inconsistent with the Pareto principle.

Roberts (2010, 2011) attempts to resolve the apparent contradiction of the asymmetry by arguing that although *all* possible persons matter morally and are capable of suffering loss, but only losses which are suffered in worlds in which individuals exist are morally significant. All possible persons matter, but they matter *variably* depending on the modal relationship between harm and existence. Loss is here defined in terms of a comparative betterness relation: 'to say that a person *p* incurs a *loss* at a given world *w* as a result of a given act *a* is to say that there was still another world *w′* accessible to agents at the critical time such that their performance of an alternate act *a′* at *w′* is better for *p* than their performance of *a* at *w* is' (Roberts, 2011, p. 337). Since Roberts accepts, as do I, that the non-existence can meaningfully be compared against happy or unhappy lives in terms of welfare, she finds claims such as 'Alice was benefitted by being born into a happy life' and 'Bob was harmed by being born into a miserable life' quite coherent. However, by restricting her normative attention to *losses* and claiming that losses are only morally relevant when incurred in worlds in which the individual exists, she is able to treat Alice's benefit as morally neutral and Bob's harm as morally bad. Alice would have suffered a loss had she not come into existence, but since she fails exist in the world where such a loss is incurred this loss does not matter. Bob's loss occurs in a world in which he does exist, however, and this means that his suffering has full moral status even though he does not exist in the world which is better for him.

Roberts's variabilist account is, it seems to me, by far the most plausible way of grounding the asymmetry. I grant that she has established the conclusion that 'Variabilism nicely grounds both halves of the Asymmetry *and* avoids the consistency and other conceptual problems that plague its competitors' (Roberts, 2011, p. 336). But this is not an argument for variabilism over possibilism unless we feel compelled to endorse the asymmetry. The motivation for the symmetry, it seems, is simple intuition. When Roberts does attempt to argue for variabilism over possibilism, the brute nature of her belief that making happy people must be morally neutral is clear:

> The one distinction that Inclusion [i.e. possibilism] insists
> we set aside is always going to seem to us one that no
> sound moral analysis can conceivably set aside: that one
> act imposes a loss on a *real, live, flesh and blood,*

> *sentient being* and the other a loss on, well, *nothing* that
> does or will *ever exist at all*. There *just is* an important
> moral distinction to be made between "making people
> happy" and "making happy people." In a way that can
> only be described as axiomatic, your actual dog *must*
> come before your merely possible cat. (Roberts, 2010, p.
> 45 emphasis in original)

According to Roberts (2010, p. 75), the fact that inclusivism provides answers to moral problems involving possible persons we find counterintuitive shows that it 'is surely false.' This clearly begs the question. While Roberts shows that it is possible to sharpen the intuition behind the asymmetry in order to avoid patent absurdities, she gives us no reason beyond her own insistence to accept variabilism over possibilism. In response, I have nothing to say to Roberts other than 'I don't share your intuitions on this matter.' Although I share the view that a moral *obligation* to make happy people whenever possible would be quite unreasonable, it does seem to me intuitively that making happy people is *supererogatory*. I am happy to have been born, and, intuitively, this happiness should count as a point in favour of my parents' decision to bring me into the world. Since carrying and raising an unwanted child would be severely burdensome we generally do not consider voluntarily childlessness blameworthy (or abortion impermissible), but this does not preclude the possibility that we benefit individuals by bringing them into a happy existence. Similarly (but with the exception of Singer (1972)), we do not generally consider it blameworthy to refrain from donating a large portion of our income to poverty alleviation efforts but have no problem praising those who do. On most liberal accounts of morality, charity is supererogatory, and my intuitions suggest the same is true of making happy people. Roberts and others are free to disagree, but I here take axiological possibilism as an assumption of my argument.[53]

5.3. Possibilist contractarianism

In order to consider the interests of possible persons in collective decision-making contexts, I use a version of hypothetical contractarianism. Broadly speaking, this approach is most closely associated with Rawls (1971), but my approach here owes more to Harsanyi (1953, 1955, 1977, 1978). The contractarian method simulates

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[53] Though I may well be outnumbered on intuitions regarding the praiseworthiness of making happy people, I am far from alone (e.g. C. Hare, 2007; R. M. Hare, 1975; Holtug, 2001; Nagel, 1970, p. 78; Parfit, 1984, pp. 487–490; Rachels, 1998).

disinterested moral reflection by asking what principles, institutions, or rules rational and self-interested individuals would choose when denied knowledge of their place in society. To borrow a couple of Rawlsian terms, the 'original position' consists of some population of contractors behind a 'veil of ignorance' which denies them knowledge of their own place in society. The population of contractors, the nature of the veil, and the decision rules used by contractors vary between contractarian theories. In terms of the nature of the veil and the decision rule adopted, I follow Harsanyi (1953, 1955, 1977, 1978). Contractors are perfectly informed about the preferences of all members of society and how the relevant alternatives will impact resource allocations. At the same time they are denied knowledge of their place in society. Each contractor has an equal chance of taking the place of any member of the relevant population, with their combination of resource allocations and preferences determined by random chance. In thinking about the choice between alternative rules, then, the contractor approaches the choice as one between quantifiably uncertain prospects. In asking which alternative maximises expected utility, the contractor is forced to consider the interests of all affected parties impartially.[54] The uncertainty of this original position forces its hypothetical inhabitants to abandon their idiosyncratic preferences and to impartially balance the competing interests of all relevant parties, since each could end up being any of these parties.

While accepting Harsanyi's version of the veil of ignorance and the decision rule motivating contractors, I depart from his definition of the relevant population of instead follow Kavka (1975, p. 240), who points out that the standard veil of ignorance fails to obscure one potentially very important fact: that one exists. Since each individual in the original position knows that they will in fact exist, their choices may not be as impartial as we might like. Parfit provides an example of a contractor choosing between two possible worlds:

> In *Hell One*, the last generation consists of ten innocent people, who each suffer great agony for fifty years. The lives of these people are much worse than nothing. They would all kill themselves if they could. In *Hell Two*, the last generation consists not of ten but of ten million innocent people, who each suffer agony just as great for fifty years minus a day (Parfit, 1984, p. 393).

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[54] Rawls's setup differs in positing unquantifiable uncertainty rather than risk and the maximin strategy of making worst-case outcomes as desirable as possible.

If given the knowledge that they will certainly exist, a selfishly rational individual will prefer Hell Two, since it saves them from a day of agony. Intuitively, though, Hell Two looks much worse than Hell One. The standard hypothetical contractarian method completely ignores the number of those suffering, which is surely a morally relevant fact. The natural response to such problems is to populate the original position with *possible* rather than *actual* persons. Each possible person is asked to evaluate the rules of a society which they will live in if they happen to come into existence at all. Rules affect the number of individuals in society as well as the welfare of those who are actually born, and a hypothetical contractarian approach I adopt here provides the conditions for an impartial consideration of both factors.

The use of hypothetical contractarianism is motivated by the need to impartially consider the interests of all affected parties and reflects the general distinction made by constitutional political economists between choice *among* rules and choice *within* rules (Brennan & Buchanan, 2000; Hamlin, 2014). When it comes to in-period political choice, deliberation and voting on particular children's rights laws would be biased by each individual's idiosyncratic preferences and position. The constitutionalist's response to this problem is to push debate up a level of generality and seek agreement on the rules by which children's rights laws can be enacted. If the rules under consideration are sufficiently general and durable, individuals will be forced by a 'veil of uncertainty' to consider the matter impartially, since any unfairness cannot reasonably be predicted to be to one's advantage in the long run. Here, though, the certainty that one has been born (and if we restrict suffrage to adults, that one has reached the age of majority) renders the impartiality of constitutional deliberation questionable. No matter the generality and durability of constitutional rules, the actual will always be able to stack the deck in favour of themselves and against the possible. Hypothetical contractarianism offers a conceptual solution to the problem of balancing the interests of current and future generations if we include all those who exist today and all those who will ever exist. When the existence of some individuals is endogenous to the choice at hand, however, the affected parties whose interests we should consider include those who might never come to exist.

To make use of the original position as an analytic device in this context, we need to define the relevant population of possible persons. If we are considering the choice between two rules q and r, the possible persons we should consider are those existing in either or both of the two possible worlds (w_q and w_r respectively)

realised by our choice. Let Q equal the set of individuals existing in w_q and R the set of individuals existing in w_r. The relevant set of possible persons will be the union of these two sets. The original position will thus be populated by $n = n(Q \cup R)$ individuals uncertain of their identity. Each contractor seeks to maximise their personal utility, which depends both on their probability of being actualised and on their utility contingent upon actualisation. Let $E(x)$ represent the expected utility of individuals contingent on existing in world w_x. Each contractor will prefer whichever rule x maximises $E(x)\frac{n(X)}{n}$. Other things equal, contractors prefer rules which give them a greater chance of existing and greater utility in the event that they do exist. When these two factors conflict, contractors need to weigh a greater chance of being actualised against a lower expected utility contingent upon actualisation.

Some have denied that hypothetical contractarianism can meaningfully be modified in this way. Parfit states that 'we cannot assume that, in the actual history of the world, it might be true that we never exist. We therefore cannot ask what, on this assumption, it would be rational to choose' (Parfit, 1984, p. 392). This, he says, means that the contractual method 'is not impartial unless we imagine something that we cannot possibly imagine.' It is unclear why Parfit thinks we cannot ponder the uncertainty of our own existence. Is it just that our own non-existence is hard to imagine? True, but we do not need a very thick description to do moral philosophy. Kavka's paper imagines a hypothetical choice, and the existence of such a paper seems to show that at least one human has sufficient imaginative power. Parfit might instead mean that we as actual people know that the status quo set of institutions has produced a world in which we exist. Our existence supervenes on the actual history of the world, and so we have some information that existing institutions are good for us, and this adulterates the neutrality of our moral reasoning. This may be true, but it applies more broadly and does not preclude the possibility of at least attempting to abstract from this bias in order to impartially evaluate principles, institutions, or rules.

Cowen offers a more substantive criticism, arguing that since hypothetical contractarianism assumes that those in the original position are self-interested, too much weight is given to actualising possible persons. To illustrate his objection, Cowen (1989, pp. 39–40) uses the example of 'Hurka's Gamble.'[55] We are to imagine that some omnipotent being offers us a gamble. With probability 0.51 the

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[55] Cowen borrows the example from Hurka (1983).

current and future population doubles with the average level of utility remaining the same; with probability 0.49 the human race is extinguished. In a world of 100 people each enjoying a payoff of 10, the relevant population of potential persons is 200. Rejecting the gamble would maintain the status quo, giving each potential person a 0.5 probability of earning a payoff of 10 and a 0.5 probability of not existing and earning a payoff of 0. Accepting the Gamble would yield a 0.51 probability of existing (payoff 10) and a 0.49 probability of not existing (payoff 0). Accepting the gamble gives a higher expected payoff (5.1 versus 5), is less risky, and does not alter the payoff contingent on existence. As such, it is clearly optimal to accept the gamble. Further, it will be rational to accept the gamble however many times it is offered. As the number of completed gambles increases, the probability of the human race surviving approaches zero. Hypothetical contractarianism with possible persons should be rejected, according to Cowen, since by giving each potential life equal weight and accepting Hurka's gamble it 'does not [capture] the notion that increasing numbers of individuals do not always yield a proportionately better solution' (Cowen, 1989, p. 40).

To answer Cowen's criticism, we need to ask what 'self-interested' means in the context of the contractarianism. Each potential individual is interested in maximising the utility they can expect to enjoy, but this does not imply selfishness in the sense of indifference to the welfare of others or to other considerations. If individuals have a preference that the human race exists in some form or that as many individuals as possible exist independently of their preference for their own existence, the payoffs involved in Hurka's Gamble alter. This would involve a departure from selfishness, but not from self-interest in the sense of optimising on one's own preference function. No hypothetical contractor knows their place in society, but if the individuals they have a chance of becoming have altruistic or non-instrumental preferences, this is a relevant consideration from a self-interested point of view. Suppose that each potential individual has a preference of intensity 1 that the human race exists.[56] Since we are engaged in a comparative exercise, the preferences of potential individuals are relevant whether or not those individuals are actualised. Thus, in a the no-gamble situation, each contractor has a 0.5 probability of existing and having the human race existing (payoff 11) and a 0.5 probability of not existing but having the human race remain (payoff 1). The

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[56] That is, any person who comes to exist in any world will have this preference. In the present case, this means that each of the 100 inhabitants of the no-gamble world receive a payoff of 1 from knowing of the existence of the human race. If the gamble is taken and won, each of the 200 inhabitants will have a similar preference.

Gamble involves a .51 probability of existing and having the human race existing (payoff 11) and a .49 probability of not existing and having the human race end (payoff 0). The choice is no longer so clear. With payoffs as arbitrarily defined here, rejecting the gamble yields a higher expected payoff with lower variance and would therefore be preferred by most reasonable decision rules. The contractarian method is designed to remove bias by focusing on the preferences which individuals actually have. If people are self-interested in a narrow sense, contractarianism will produce conclusions many of us consider undesirable.

As Hurka's Gamble shows, the results of hypothetical contractarianism are vulnerable to misspecified preferences. If we make the wrong assumptions about what individuals would choose under ideal circumstances, we will get the wrong answer. This is true of contractarianism generally, and indeed all normative approaches which take preferences or interests as evaluative standards. Like formal modelling in the social sciences, the contractarian method in normative political theory does not guarantee reasonable assumptions, but it does make assumptions transparent. In addition to making assumptions more easily evaluable, this enables a form of sensitivity analysis as assumptions can be altered and the robustness of conclusions across alternative specifications observed.

5.4.   Children's rights and parents' incentives

Parents care deeply about the type of lives their children will live. While most parents surely have a good deal of disinterested altruistic concern for their children – they simply want them to live a life as valuable as possible – parents also derive utility from their children in ways which are not in the child's best interests. This is particularly true of the cases children's rights laws are designed to deal with. The fact that many parents are willing to deny their children medical treatment or education despite strong opposition from mainstream society suggests that their cultural preferences are strong and deeply-held. In many cases, the welfare of children and the preferences of parents seem to be at odds. If, as many liberals hold, Christian scientists have mistaken theological views and harm their children by denying them life-saving medical treatment, we have a prima facie case for a liberal state to step in to protect children, at least on certain interpretations of liberalism.[57]

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[57] On interpretations of liberalism which would not make such an assumption, see generally Galston (1995), Kukathas (2003), and Levy (2003).

Such cases can be usefully considered in light of the economic approach to fertility developed by Gary Becker (1960, 1991).[58] In this rational choice framework, parents are assumed to maximise some preference function, which is positively related to services produced by the child as well as other forms of consumption. A child is both consumption good and production good as far as parents are concerned. In their capacity as consumption goods, children produce enjoyment, pride, or are otherwise directly valued by their parents. In their capacity as production goods, children contribute to the production of other goods by working within the household or on the labour market. We need not assume here that parents are selfish, but that they maximise a utility function which does not *perfectly* reflect the best interests of the child. In some cases such conflict will be due to selfishness; in others, to misguided altruism or commitment to some impersonal moral creed.

The unusual relationship between parent and child raises special problems for liberal theory. The parent not only has unparalleled power to harm or benefit the child, but also controls the very existence of the child. While easy access to birth control, abortion, and reproductive technologies have dramatically increased the control of fertility in the developed world today, people at all times and places have had some control over the number of children, through such mechanisms as abstinence, *coitus interruptus*, and extended breast-feeding. Fertility choices are influenced by all sorts of factors (Hondroyiannis, 2010, pp. 34–35). Among these factors, I contend, is the extent to which parents can shape the development of their children in line with their own preferences. If institutional factors influence the very existence of some children, the liberal or utilitarian justifications for children's rights laws become much more complicated.

Raising children is costly, and parents respond to incentives when making fertility decisions. Factors such as income, opportunity costs, and fiscal policies will influence the number of children people choose to have. So too will the expected quality of children defined in terms of the degree to which the child produces tangible and intangible services valued by parents. Children's rights laws which restrict parental sovereignty, if they are to alter the behaviour of targeted parents and ruling out strict indifference, necessarily reduce the quality of children in this sense. Under a rational choice framework, the fact that parents are choosing to treat their children in certain ways reveals that they prefer the state of affairs in which

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[58] See also Birdsall (1988, pp. 501–522) and Hotz et al (1997).

they so treat their children. By passing laws which prevent such treatment, we tighten their budget constraint and lower their welfare. More importantly, we change the relative price of child services. Assuming that the costs of raising children remain the same, children's rights laws will make it more expensive to produce a unit of child service.

If we assume continuous demand for children, and barring the possibility that child services are Giffen goods, this will straightforwardly reduce the quantity of child services demanded, as shown in figure 5.1. The vertical axis represents the quantity of child services C, and the horizontal axis represents the quantity of all other goods, X. The budget constraint BC_1 shows the possible combinations of child services and other goods the parent could produce given the resources they have available in a world without child protection laws. Given the parents' preferences as represented by the indifference curves I_1 and I_2, the parent will demand child services in quantity Q_1. With the introduction of a children's rights law, the production function which transforms child-rearing inputs into child services becomes less technologically efficient, and this increases the price of children, thus pushing the budget constraint inwards to BC_2 and increasing the relative price of child services, as reflected in the altered slope of the budget constraint. This will reduce the quantity of child services demanded from Q_1 to Q_2.

Figure 5.1: Children's rights and the demand for children
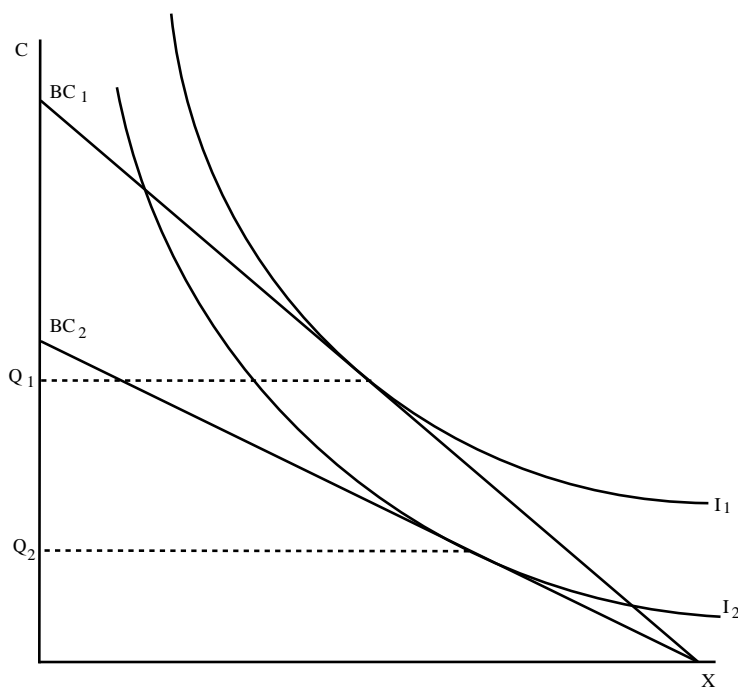
A recognition of the fact that child services are not entirely continuous – that is, the parent is not able to produce at any point value but is rather constrained to a set of discrete options – complicates the analysis somewhat and means that children's rights laws would probabilistically reduce the quantity of child services demanded. Given sufficiently many parents with varying budget constraints and indifference curves, however, the discrete case would approximate the continuous case described above.

Of course, child services are not the same thing as children. Economic theorists of fertility have long recognised that there is a trade-off between the quantity and quality of children (Becker & Lewis, 1973). That is, a parent may have many children and derive a little satisfaction from each or may invest heavily in one or two children in order to derive greater per-child satisfaction. Fertility decline in the developed world seems to reflect a shift from quantity to quality in this sense. Thus, it is possible for the situation in figure 5.1 to be realised without a decrease in the number of children born. Rather, the parent invests less in each child. This is likely true for some parents and some types of legal protections, but it seems a priori likely that in some cases a reduction in the demand for child services will be accompanied by a reduction in the number of children produced. Indeed, there are some empirical cases where legal restrictions do seem to have had an effect on fertility.

One such case is the prohibition of child labour. Child labour is not necessarily bad for children, since some households are so poor that child labour is necessary for survival. Under such conditions, even purely altruistic parents would send their children to work and restrictions on their ability to do so would be bad for children (Basu & Van, 1998). The analysis here is concerned with cases in which there is a genuine conflict of interest – i.e. the child would be better off not working. Formal theoretic models have generally concluded that restrictions on child labour will tend to reduce fertility (Dessy, 2000; Doepke, 2004). While there has been little rigorous empirical investigation of this question, that evidence which does exist supports this conclusion. This evidence is indirect in the sense that it suggests that child labour market conditions which alter the economic value of children to parents, rather than regulation per se, have an effect on fertility. It should be obvious that certain labour-market restrictions will reduce the economic value to parents of children. If we can know empirically that lower value tends to depress fertility, it is reasonable to conclude that certain types of regulation will reduce fertility. Early studies showed that child participation in the labour market tend to

coincide with high birth rates (Schultz, 1970). This tells us very little, however, since high birth rates could easily be causally responsible for high rates of child labour. Rosenzweig and Evenson (1977) show that high child wage rates in India are correlated with high levels of fertility and take this as evidence that parents respond to economic opportunities by having more children. Levy (1985) finds similar evidence in Egypt. While correlational studies of this sort can never rule out omitted variable bias, there is no obvious alternative explanation. If a law is implemented which prevents parents from sending their children to work, fertility will be affected, at least in a probabilistic sense. Children in poor countries are a productive asset for households, and anything which reduces their productivity will increase the relative price of child services and potentially reduce fertility.

Another case is the prohibition of gamete donor anonymity. A number of theorists have argued that children have a right to knowledge of their genetic heritage and that the anonymous donation of sperm or ova violates this right (Cowden, 2012; Frith, 2001). Without knowledge of who their biological parents are, it is argued, children are unable to form a coherent sense of identity. If we accept this argument and given that many donors wish to remain anonymous, prohibition of anonymous donation is a protection of children against the preference of their donor parents.[59] Such prohibitions harm some donors and benefit some children in a justifiable way. In recent years, many countries have used this logic to justify prohibitions of anonymous donation (Turkmendag, Dingwall, & Murphy, 2008, pp. 283–284). It has been pointed out that prohibition might reduce donation rates, since prospective donors might worry about being identified and contacted by donor-conceived offspring. Since there is already a perceived shortage of suitable gamete donors, prohibiting anonymous donation makes it more difficult for recipient parents to have children (Pennings, 2001). This is normally framed as a normative problem insofar as it is bad for potential recipient parents, but under the framework I am adopting here we can also see it as affecting potential children by making their realisation less likely.

In UK survey research, the potential for identification by and contact from offspring were the most-cited concern among semen donors. Forty-six percent stated concern that law changes would allow offspring to identify them once they reached adulthood, and thirty-seven percent expressed concern about being contacted by offspring. These reasons were also highly cited by non-donors,

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[59] Things get more complicated when we consider the interests of the social parents. I ignore these complications here since they do not affect the general thrust of the example.

though they were not so dominant. Sixty-eight percent of donors stated that they would not be willing to donate if the law changed to allow their name to be revealed to offspring once they reached eighteen years of age (Cook & Golombok, 1995). Other studies have shown more modest effects, but all existing survey research suggests that a significant proportion of donors would rather not donate in the absence of anonymity.[60]

Survey research has its limitations when used to predict behaviour, of course, but other forms of empirical evidence seem to point in the same direction. Political debates and eventual law changes prohibiting anonymous semen donation in the UK and the Netherlands have coincided with sharp reductions in donation rates (Janssens, Simons, Van Kooij, Blokzijl, & Dunselman, 2006; Paul, Harbottle, & Stewart, 2006). More convincingly, many prospective parents are willing to travel internationally in order to undergo assisted reproduction in jurisdictions without donor anonymity prohibitions (Pennings, 2010). As the Dutch law came into effect, for example, clinics in Belgium, and particularly those near the Dutch border, saw a large increase in Dutch patients (Ombelet, 2007; Pennings et al., 2009).

These two cases are suggestive that laws designed to protect children from bad parents can sometimes reduce the number of children born. Theoretically, we should expect this effect to apply more broadly. Laws designed to protect children from their parents lower the value of children to their parents, and the economic analysis of fertility outlined above suggests that this will sometimes prompt prospective parents to have otherwise desired children. In many cases the effect will be minor, but in some it could be quite significant. The purpose of this paper is not to show that any particular piece of children's rights legislation is undesirable due to its antinatalist effects, but to show theoretically that there is normatively-relevant issue which needs to be considered across a range of cases.

One argument in the utility function of many parents will be the cultural development of the child in particular directions. Other things equal, limits on parental sovereignty will shift the parent's cost-benefit analysis away from having a child. While this effect will surely be inframarginal for most fertility decisions, it will just as surely tip the analysis in some cases and reduce the number of children born to illiberal parents.

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[60] See Pennings (2001, pp. 617–618) for a brief review of the survey literature. On Oocyte donation, see Brett et al (2008).

The lives of children subject to illiberal practices, we shall suppose, are worse than they would have been could they have avoided those practices. If we also think those lives would have been worth living, however, we face a normative trade-off between more and better lives. I am here interested in the set of rules which are best for the relevant population of children, and so ignore the welfare of parents and any positive or negative externalities population imposes on third parties. The next section, in order to evaluate this trade-off, adopts the contractarian framework outlined in section 5.3.

5.5.   Children's rights in the original position

Before considering the trade-off between more and better lives, it will be useful to consider a baseline model in which a child, knowing she will actually exist, chooses whether to enact children's rights legislation. This is the situation children's rights advocates implicitly assume when they ignore the indirect effects of legislation on fertility.

Figure 5.2: A baseline game
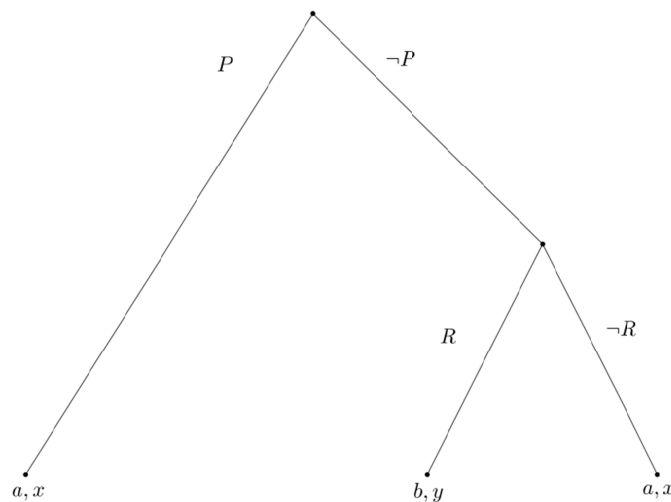
Imagine a rational, self-interested child deciding at birth whether to allow parents to perform some action which will reduce the child's lifetime utility. This situation is represented in figure 5.2 as an extensive form game between two players, Child and Parent. Let $a > b$ and $x > y$. The hypothetical child chooses whether to implement a law to protect children's rights (P) or not ($\neg P$). If Child chooses P, she earns a payoff of a and the parent earns a payoff of x. If Child chooses $\neg P$, Parent chooses whether to restrict the autonomy of the child (R) or not ($\neg R$). A choice of $\neg R$ gives the same payoffs as the situation in which Child chooses P, but

R gives Child payoff *b* and parent payoff *y*. In situations such as this, it is clear that Child should choose *P*. Child can earn *a* by choosing P. Since the parent's dominant strategy is *R*, playing *P* gives the child a higher payoff and we can confidently conclude that in such situations children's rights laws are good for children.[61]

The hypothetical child needs also to consider the effect of institutions on Parent's willingness to have children. After the child has chosen whether or not to legislate Parent chooses whether to have a child (*C*) or not (¬*C*). If Child chooses to protect at stage one, Parent has control over their fertility but not the decision of whether to restrict. For *(¬P, C)*, Parent chooses whether to restrict (*R*) or not (¬*R*). Parent heterogeneity is important here. My suggestion is that some parents will choose to have children if and only if there is no law restricting parental autonomy. That is, for some parent *i*: $u_i(\neg P, C) > u_i(\neg P, \neg C) \wedge u_i(P,C) < u_i(P, \neg C)$, where $u_i(X,Y)$ represents the payoff to *i* of the solution (*X,Y*). There are five possible parental types, illustrated in table 5.1.

Table 5.1: Parental types

	P	**¬P**
Weakly illiberal	*C*	*(C,R)*
Strongly illiberal	*¬C*	*(C,R)*
Liberal	*C*	*(C,¬R)*
Nervous liberal	*C*	*¬C*
Non-breeder	*¬C*	*¬C*

Children's rights law is designed to change the behaviour of the weakly illiberal and strongly illiberal parents, and indeed the behaviour of these types is changed by introduction of a law: the weakly illiberal have children but do not restrict their autonomy and the strongly illiberal choose not to have children at all. The choices of liberal and non-breeding parents are not affected by the law, with liberals always having children and giving them autonomy and non-breeders never having children. Another possibility is a 'nervous liberal' – one who has children if and only if children's rights laws are enacted. This could be because the parent prefers

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[61] Parent's payoff here includes any independent preference that Child receives a high payoff.

not to bring children into a society with illiberal practices or because they worry about dying before the child is raised and having their new guardian restrict their autonomy. Protective laws would thus operate as a type of insurance.

With respect to the choice between P and $\neg P$, the children of liberal and weakly illiberal parents are necessary persons, the children of non-breeders are impossible persons, and the children of strongly illiberal and nervous liberal parents are contingent persons. Contingent persons are clearly affected by the choice between P and $\neg P$, and so too are the children of weakly illiberal parents. Though they are necessary persons, their welfare varies across alternatives. The groups affected by the decision at hand are the children of strongly illiberal (S), weakly illiberal (W) and nervous liberal parents (L), meaning that we can ignore the other groups. The entire population of relevant possible persons, N, is the union of these sets and has cardinality n.

To model this, we assume that a hypothetical child chooses between P and $\neg P$, knowing that nature will then assign them a parental type (S, W, or L) based on the (exogenous) relative number of parental types in the population. Once parental type has been determined, parent will choose between C and $\neg C$. If child chooses $\neg P$ and parent chooses C, parent will then choose between R and $\neg R$. Child earns a payoff of a for an autonomous existence, b for a nonautonomous existence, and c for non-existence, with $a \succ b \succ c$.[62] Parents of type S have the payoff ranking $d \succ e \succ f$; W: $g \succ h \succ i$; and L: $j \succ k \succ l \succ m$. All illiberal parents (S and W) most prefer to have a child and restrict their autonomy (payoffs d and g). Weakly illiberal parents prefer an autonomous child (h) to none at all (i), while strongly illiberal parents prefer to

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[62] Some types of non-autonomous existence may be worse than not existing, in which case Child's preference ordering would be $a \succ c \succ b$. When discussing the right of parents to severely abuse their children such an ordering might be relevant and would remove the trade-off between more and better lives (since marginal lives would have negative value). In most cases where children's rights laws are up for debate, however, a non-autonomous existence is on average better than nothing. Few would deny that women generally live worthwhile lives despite clitoridectomy, though they might be significantly less worthwhile than they otherwise would have been. In this paper I am concerned with laws for which the proscribed activity would reduce the victim's welfare but not by so much that their life is not worth living. An interesting extension of my argument would be to consider cases in which mild restriction reduced welfare but did not reverse the ranking of life and non-existence while extreme restrictions did make life worse than nothing. If some parents would engage in extreme restrictions and others mild restrictions and if a law could prohibit extreme restriction only by also prohibiting mild restriction, we would have another trade-off to consider. The sets S and W could each be divided into two sets, those who would engage in mild and extreme restriction respectively. This would increase the desirability of legislation, and the strength of this effect would depend on relative number of extremely and mildly restrictive parents. Since I think the politically relevant case overwhelmingly involve cases in which restriction almost always leaves the child with a life worth living I do not incorporate this possibility into the analysis.

remain childless (*e*) rather than have a child and not restrict its autonomy (*f*). Nervous liberal parents prefer to have a child under P (*j*) to not having a child (*k*), but prefer to be childless under ¬*P* to having children and restricting their autonomy (*m*) or not themselves restricting but worrying about the influence of illiberal others (*l*). This situation is represented in figure 5.3 (Child's payoff is first).

Figure 5.3: Children's right with endogenous fertility
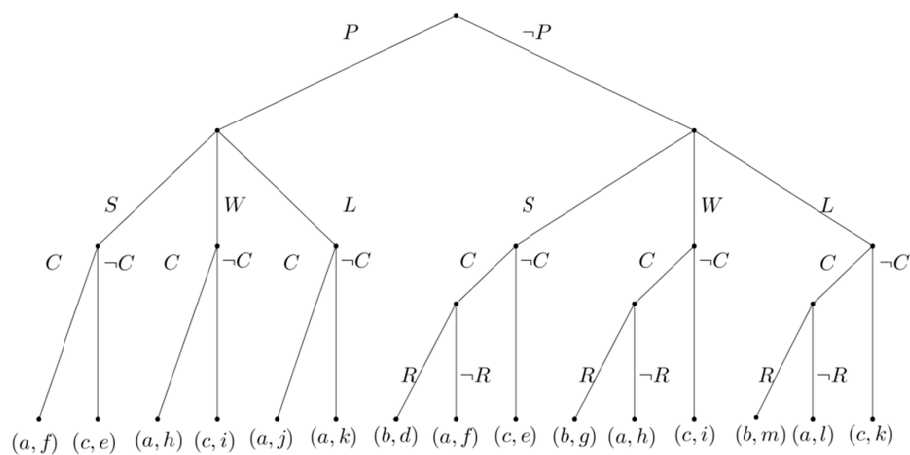
Once Child has chosen between *P* and ¬*P* and nature has chosen between *S*, *W*, and *L*, each parental type has a dominant strategy. If Child plays ¬*P*, *S* and *W* parents will play (*C,R*), and *L* parents will play ¬*C*. If Child play *P* and nature plays *S*, Parent will play ¬*C* and child will never exist. *W* and *L* parents, on the other hand, will play *C*. When nature plays *S*, Child is better off playing ¬*P* (since $b \succ c$). When nature plays *W* or *L*, Child is better off playing *P* (since $a \succ b$ and $a \succ c$). Since nature's choice is determined by the relative populations of *S*, *W*, and *L* parents and each has a dominant response to any choice between *P* and ¬*P*, we can simplify the choice problem faced by Child. *S*, *W*, and *L* are disjoint sets and together exhaust the population of possible parents (i.e. *n(S ∪ W ∪ L) = n(S) + n(W) + n(L) = n)*. Under *P*, child exists and is autonomous with probability *n(W ∪ L)/n* and fails to exist with probability *n(S)/n*. Under ¬P, child exists and is non-autonomous with *n(S ∪ W)/n* and fails to exist with *n(L)/n*. This is shown figure 5.4 below.

Figure 5.4: A decision-theoretic simplification
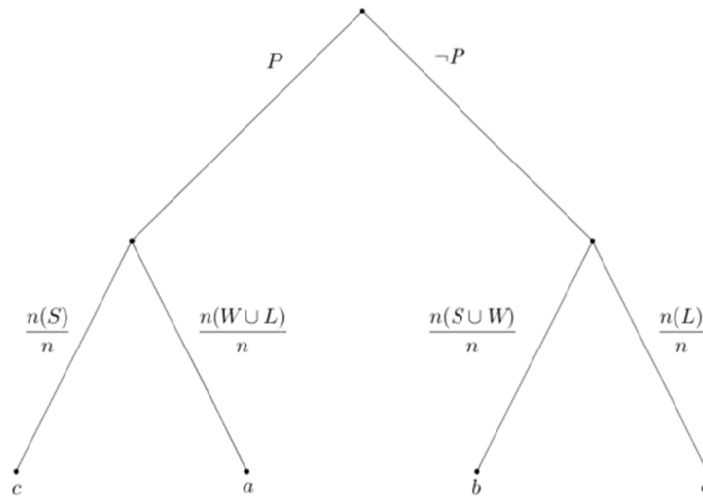
Protective legislation P is Pareto superior to $\neg P$ when we consider only actualised children, but it is possible that the number of children born will be greater under P than $\neg P$. Since the children of W parents exist in either case, this possibility depends straightforwardly on whether there are more strongly illiberal or nervous liberal parents. If n$(L) \geq n(S)$, protective legislation is clearly desirable from the viewpoint of a hypothetical child behind the veil of ignorance constructed here. In this case they will be at least as likely to exist and as under $\neg P$ and will enjoy a higher payoff if they are actualised. If $n(S) > n(L)$, on the other hand, the realised population will be larger under $\neg P$. This means that the potential child faces a trade-off between the probability of being born and their payoff conditional on being born.

What would a rational possible child choose in this situation? Setting aside risk preference, the answer depends on two factors: the size of S in relation to W and L, and the intensity of preference for an autonomous existence over a non-autonomous one relative to the intensity of preference for a non-autonomous existence over non-existence. It is not simply sign of the difference between S and L that matters, but the magnitude of the difference between S and L as well as that between S and W. Children of W and L parents are worse off under $\neg P$. Switching from P to $\neg P$ moves W children from an autonomous to a non-autonomous existence and L children from an autonomous existence to non-existence. A higher proportion of W and L parents makes P more desirable, and the effect is stronger for L.

Preference intensity also matters. If *a-b* is small relative to *b-c*, the low marginal benefit of autonomy will make a choice of ¬*P* more likely. In other words, strong preferences for existence and approximate indifference between types of existence make whichever option maximises actualised population more attractive, and when $n(S) > n(L)$ this will be ¬*P*. Another factor is risk preference. For $n(S) > n(L)$, ¬*P*'s payoffs will have lower variance and risk-averse decision-makers will tend to prefer it. Assuming risk neutrality, a rational hypothetical child behind the thickened veil of ignorance used here will prefer not to enact protective legislation whenever *(b-c)(n(S ∪ W)/n) > (a-c)(n(W ∪ L)/n)*. This will be so even when the child knows full well that, if they come to exist, their choice will allow parents to abuse their authority in ways which make their life significantly worse.

For any concrete policy choice, we cannot reach a firm normative conclusion without precisely specifying many things which cannot be precisely specified in practice: the relative value of an autonomous and nonautonomous existence, risk preference in the absence of particularised interests, and the number of strongly illiberal parents will affect the decision calculus of the possible person in this situation. What we can do, based on reasonable assumptions, is conclude that there is a potentially normatively-relevant issue which has thus far been ignored. While it may be that fertility will be higher with children's rights laws or that the autonomy produced by such laws outweigh the forgone lives, we cannot be sure of this and it should not easily be assumed if we place normative weight on those 'voices from another world' (C. Hare, 2007) whose existence some otherwise desirable policies might thwart.

We can also reach some conclusions about when children's rights laws might be less desirable with respect to the antinatalist effects described above. Generally, a hypothetical child will be more willing to enact children's rights laws when the probability of being born to weakly illiberal or nervous liberal parents is higher, and when the relative advantage of autonomy is greater. While the latter conclusion is unsurprising, the former is worth emphasising. Intuition suggests that children's rights legislation would be more desirable when parents are very illiberal. The argument here suggests that the existence of many parents so illiberal that they would only be willing to have children if allowed to restrict their autonomy is a reason *not* to legislate for children's rights.

5.6 Conclusion

Even if we restrict moral standing to children, there are important trade-offs when considering the desirability of legislation designed to protect children from their parents. Parents have great control over the welfare and development of their children, and when interests diverge there seems to be a prima facie case for state intervention. At the same time, parent's ultimate control over the very existence of children provides reason for caution. If the contractarian method adopted here is accepted as a way of simulating impartial evaluation of competing values, laws which are good for some actual children and bad for none might still be considered harmful for children generally in an abstract but important sense.

The situation here is an instance of a broader phenomenon familiar to political economists. Many policies have unintended consequences which are predictable but impossible to specify or observe empirically. Frédéric Bastiat (1995) distinguished between the seen and the unseen effects of policies, arguing that the task of the economist is to look beyond the immediate and visible effects of a policy and consider the invisible but analytically foreseeable consequences. Those children protected from parental mistreatment are visible and (imperfectly) specifiable. Those children never born as a result of regulation are invisible and nonspecific. This paper has argued that such invisibility should not diminish their moral standing. More generally, we should subject normative theory to positive analysis in order to uncover the unseen effects of proposals which seem clearly desirable at first glance. Such feasibility analysis is an indispensable component of any normative theorising which seeks to inform real-world choices (Brennan & Hamlin, 2009).

Rules never tell people precisely how to behave. Rather, rules cut off certain options but leave others open. If rules are made in the hope of preventing one type of harmful action but leave more harmful alternatives on the table, desirability is far from assured. The situation here is closely analogous to that of minimum wage laws in logical structure. While these laws are intended to protect vulnerable workers from unfair treatment by employers, they do not mandate that vulnerable workers are hired and receive decent wages. Rather, they mandate reasonable wages conditional on employment, and this will prompt employers to hire fewer low-productivity (i.e. vulnerable) workers. Minimum wage laws will increase the wages of some relatively vulnerable workers but will tend to push the *most* vulnerable out of work altogether (Gorman, 2002). Just as the existence of many

highly vulnerable workers on low wages shows us that there is a problem but also indicates that the most obvious policy solution might do more harm than good, the existence of many parents strongly committed to raising their children in ways which hamper the development of autonomy does not necessarily provide an argument for prohibition on welfarist grounds.

This is not to say that such abuses of parental authority should be ignored, however. While rational possible children may prefer a regime of parental sovereignty to one characterised by broad negative sanctions, there may be other incentive schemes which encourage liberal treatment without depressing fertility. Interestingly, imperfect enforcement of children's rights laws could be beneficial here. I have assumed above that legislation is absolutely binding. If we relax this assumption and admit that some people will break the law and accept punishment with some probability, we can see a legal prohibition as imposing an additional cost on undesirable actions. Those with a weak preference for the prohibited activity will be unwilling to pay this cost, while those with very strong preferences will. Thus, imperfectly enforced prohibitions might encourage liberal treatment while allowing the strongly illiberal to have children and (unlawfully) raise them in accordance with their preferences. This would not completely resolve the trade-off between rights protection and fertility, since the cost of breaking the law will be a decisive factor in some fertility choices. It may be the case, however, that weakly enforced laws with various loopholes are preferable to stronger laws in some cases.

Moreover, laws interact with preferences and norms in various ways (Cooter, 1998; Sunstein, 1996). An obvious possibility arises when we consider the model above dynamically, with today's children becoming tomorrow's parents. If parental type is heritable via upbringing, the distribution of parental types will be endogenous to the choice between P and $\neg P$ in previous periods. Children's rights protections would put the strongly illiberal at a reproductive disadvantage. Though the normative position adopted here would see these missing generations as regrettable, it is plausible that under some conditions other groups would increase their fertility to compensate. If that were the case the normative analysis would need to be much more complicated than that presented above.

Another possibility is that the preferences of *particular* parents are endogenous to institutions. This could happen directly via a psychological reaction to policy. Parents might respond to legislation by internalising the liberal norms embodied therein. On the other hand, unpopular laws might provoke backlash from parents

and reinforcement of illiberal attitudes. Social factors suggest that law might affect preferences indirectly. It may be, as Mackie (1996) argues, that certain cultural practices such as female genital mutilation are instead the result of a suboptimal cultural norm which parents prefer to follow only when such norms are widespread, suggesting that legislation might facilitate escape from a suboptimal equilibrium.[63] These issues need to be weighed up on a case-by-case basis. In some cases the protective benefits of children's rights laws will outweigh the costs. In others, the apparent trade-off may be illusory in the long term. The argument presented here, however, shows that the mere existence of vulnerable children and bad parents does not necessarily justify protective intervention.

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[63] Mackie suggests that wide-spread foot-binding and female genital mutilation result from suboptimal equilibria maintained by expectations in the marriage market. While everyone, or at least all victims of the practices, would be better off if they could simultaneously agree that the practices end, this is usually prevented by coordination problems.

6. Analytic Radicalism

Abstract: *Brennan and Hamlin provide a normative justification for dispositional conservatism based on the concave value functions which give rise to quasi-risk aversion. This note modifies this argument for 'analytic conservatism' by allowing jurisdictional exit in response to institutional decline. By providing a welfare floor which limits the cost of failure, exit reverses the normative implications of Brennan and Hamlin's argument, making risk-neutral agents quasi-risk seeking and justifying a radical disposition to reform under some circumstances.*

6.1. Introduction

Conservatives argue that the complexity of the social world and the limits of human foresight make a systematic bias towards the status quo desirable. Brennan and Hamlin (2004, 2006) have sought to analytically define this conservative disposition and to argue for its general desirability from the normative perspective of modern economics.[64] This paper examines the reach of this argument by showing that exit options are capable of inverting the normative implications of the analytic conservatism model. Thus, we have an argument for 'analytic radicalism' given certain conditions to parallel Brennan and Hamlin's argument for 'analytic conservatism.'

6.2. Analytic conservatism

Conservatives such as Burke (1790) and Oakeshott (1947, 1962) have based their position in part on the limits of human foresight and planning. While received institutions are always imperfect and could potentially be improved through reform, such reform always carries some risk of failure. If implementation fails or the policy gives rise to unintended consequences, reform may prove undesirable *ex post*. A reform is always a gamble, and the conservative position is that such gambles are generally undesirable. Conservatism in this sense is not a fully-specified political ideology, but rather a disposition which can be combined with other substantive ideological commitments such as a concern for liberty, equality, or efficiency.[65]

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[64] For other rational choice discussions of institutional conservatism, see Congleton (2011) and Kuran (1988).

[65] On political dispositions, see generally Hamlin (2006).

Brennan and Hamlin (2004, 2006) attempt to ground the conservative disposition in the standard normative framework of economics by showing that risk neutral agents will often behave as if they are risk averse.[66] This argument rests on the convexity of preferences[67] and resulting concavity of value functions, which imply that deviations from ideal conditions will produce increasingly large reductions in utility. This creates an asymmetry between gains and losses relative to any status quo point (G. Brennan & Hamlin, 2004, pp. 684–690).

This asymmetry can be seen in Figure 6.1. The vertical axis represents value, which depends on institutional quality. Suppose that the status quo level of institutional quality is Qs, which produces value of Vs. A reform is proposed which will increase or decrease institutional quality by the same amount – to Ql and Qw respectively – with equal probability. A decision maker risk-neutral with respect to institutional quality would have no basis for choosing between reform and inaction, since expected institutional quality is the same in either case. The concavity of the value function, however, means that the gain in utility of moving from Qs to Qw is less than the loss of moving from Qs to Ql, and a risk-neutral value maximiser would choose to maintain the status quo. Indeed, many bets with significantly positive expected returns in terms of institutional quality would be refused by a risk-neutral agent.

Figure 6.1: Concave value and analytic conservatism

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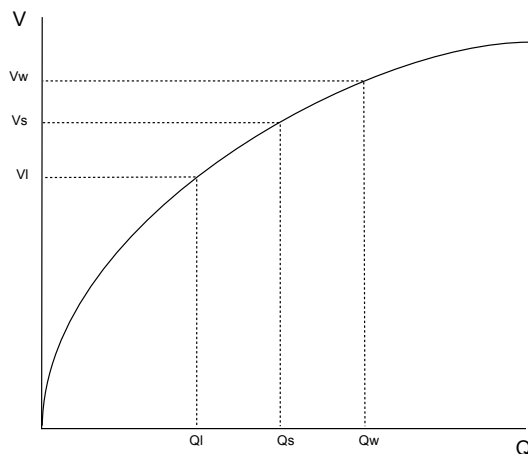
[66] Brennan and Buchanan's (1981, 1983, 2000, pp. 54–59) earlier arguments for systematically pessimistic assumptions regarding human nature for comparative institutional analysis are logically similar to Brennan and Hamlin's argument for analytic radicalism. My use of the term 'quasi-risk aversion' comes from Brennan and Buchanan (2000, p. 54).

[67] An agent has convex preferences over some set of goods if averages are preferred to extremes. More precisely, preferences are convex in case any bundle which is a weighted average of two bundles on the same indifference curve is at least at valued as either of the original bundles.
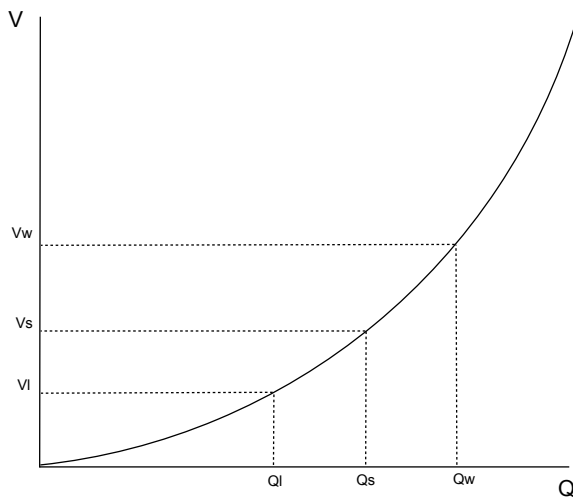
6.3.   Analytic radicalism

That a risk-neutral decision maker will be 'quasi-risk averse' with respect to institutions provides a general reason for adopting a conservative disposition. While some proposed reforms will remain desirable, analytic conservatism suggests that the burden of proof lies with the reformer. Simply showing that the expected change in institutional quality is positive is not enough; we also need to consider the shape of the function relating institutional quality to social welfare.

Like 'conservatism,' the term 'radicalism' has taken on substantive connotations regarding the type of institutions which should govern society. We can, however, consider radicalism in dispositional terms as a tendency to boldly seek reform, whatever one's substantive ideological commitments are.[68] Moreover, the radical disposition can be justified as appropriate to certain circumstances using the same analytic and normative framework Brennan and Hamlin use to justify conservatism.

Preference convexity and the resulting concavity of value functions are common assumptions in economic analysis, since they are intuitively appealing and seem to be generally true as an empirical claim about humans. Decreasing marginal value is not an immutable feature of the universe, however, and there are real-world cases in which marginal utility is increasing over some ranges.[69] If preferences are concave and thus value functions convex, the normative implications of Brennan and Hamlin's argument for analytic conservatism are reversed. Consider Figure 6.2. Here, the convexity of the value function means that a fair gamble in terms of institutional quality will produce an increase in expected value. Since the potential gains exceed the potential losses, a decision maker risk-neutral regarding value would be biased towards experimentation rather than conservatism. Thus, in such situations we have a welfarist justification for analytic radicalism to parallel Brennan and Hamlin's justification for analytic conservatism.

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[68] Brennan and Hamlin contrast conservatism with 'idealism.' I avoid that term here because their conceptualisation of idealism is focused very much on a desire to reach some ideal point rather than on institutional change generally. An acceptable alternative to 'radicalism' for my purposes would be 'progressivism.'

[69] For example, indivisibilities in consumption can produce increasing marginal utility of income over certain ranges where a continuous function would produce uniform diminishing returns. This might explain the allegedly irrational practice of simultaneously buying lottery tickets and insurance (M. Friedman & Savage, 1948; Kwang, 1965).

Figure 6.2: Convex value and analytic radicalism

While the range of situations in which analytic radicalism applies may be narrow, there is at least one context in which the argument presented above is relevant: environments with high levels of interjurisdictional mobility. When institutional quality degrades, citizens may respond by leaving the jurisdiction and settling elsewhere (Hirschman, 1970). If there are many jurisdictions among which citizens can move at low cost, people will vote with their feet for the institutions which best match their preferences (Tiebout, 1956).[70] The existence of such outside options changes the risk profile of institutional reform, since downside risks are limited to the value of the next-best option.

In a frictionless Tiebout world of costless mobility and sufficiently many jurisdictions that every individual is indifferent between staying put and moving to some other jurisdiction (i.e. there are perfect substitutes to their current jurisdiction), reform would carry no downside welfare risk at all. If some reform fails in a particular jurisdiction, each citizen would avoid the cost by exiting and enjoying precisely the same level of welfare as the status quo in which there is no reform and they stay put. The potential benefits of reform remain, however, as citizens reap the benefits of improved institutional quality. We thus have a very asymmetric gamble: gains can be enjoyed but losses can be avoided at no cost.

If we relax the assumptions of the Tiebout model to admit mobility costs and only imperfect substitute jurisdictions, the central conclusion that outside options limit downside risk remains. Figure 6.3 shows the effect of this on the risk profile of reform. Here, the institutional value function (the solid curve) incorporates the

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[70] People move for many reasons, but institutional factors do seem to be a factor in locational decisions. See Dowding et al (1994) for an overview of the empirical evidence.

possibility of exit by being flat at levels of Q with value less than the next-best alternative, Vl. The exit option is not as attractive as the status quo of Vs, but the existence of a welfare floor at Vl makes the institutional value function convex on some ranges of Q. Potential gains outweigh potential losses, and a risk-neutral decision maker will be risk-seeking with respect to such institutional gambles.[71]

Figure 6.3: Exit and analytic radicalism
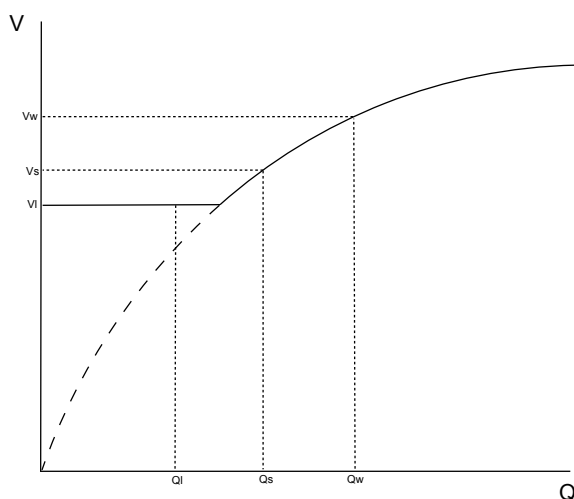
When there are sufficiently strong outside options, citizens will often be quasi-risk seeking with respect to institutional quality, and a radical disposition to policymaking will be preferable to conservatism or risk-neutrality under these conditions: the potential benefits of reform should be weighed more heavily than the potential costs of failure, thereby creating a systematic bias towards reform.

6.4.   Conclusion

The argument for analytic radicalism suggests that a decentralised system of competing governments is capable of robustly generating citizen welfare without relying on the stability of a relatively static set of institutions. This enables institutional experimentation without the risks such experimentation would normally entail. Successful reforms are obviously desirable for those within the reforming jurisdiction, but institutional experimentation also provides positive informational externalities which benefit outsiders. When one jurisdiction enacts a policy with uncertain consequences, the eventual outcome becomes public knowledge and could potentially inform reform efforts elsewhere, producing

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[71] Becker and Posner (2005) use similar logic to explain apparently risk-seeking behaviour on the part of the extremely poor and unhappy, with the option of suicide providing a welfare floor.

innovation analogous to that seen in competitive economic markets (Vanberg & Kerber, 1994; Vihanto, 1992).

Tiebout competition characterises one set of circumstances in which analytic conservatism must give way to analytic radicalism, and there may be others. An interesting possibility is the situation facing seriously misgoverned societies today. Oakeshott (1962, p. 169) sees the conservatism as 'a disposition appropriate to a man who is acutely aware of having something to lose which he has learned to care for.' Downside risks exist only to the extent that things can get worse. 'If the present is arid, offering little or nothing to be used or enjoyed, then this [conservative] inclination will be weak or absent' (Oakeshott, 1962, p. 169). It may be that Oakeshott's insight that conservatism is a disposition suited for the well-off applies at a societal, as well as an individual, level. If there is a certain level of institutional quality – the Hobbesian jungle or an extremely predatory state – below which it is impossible to fall, we have a welfare floor similar to that created by exit options. Given that dictatorial governments seem to exhibit higher variance in governance quality than democracies, such an argument could provide an efficiency justification for the apparently reckless political preferences of those in poor countries.[72] While the claim that a radical disposition is appropriate to such societies would require some serious empirical and theoretical justification, it is far from obvious that Brennan and Hamlin's argument for a conservative disposition is appropriate here and a radical disposition seems to be a plausible contender.

Radicals recognise that political institutions could be much better than they actually are; conservatives recognise that they could be much worse. Each side of this dispositional divide has a point, and there is always a conflict between the possibility of progress and the risk of decline. Brennan and Hamlin provide sound reasons for a risk-neutral agent to adopt a conservative disposition in many circumstances. This paper has described conditions under which a similarly-motivated agent should instead throw caution to the wind and boldly seek institutional improvement. While such conditions might be rare, it is important to mark the boundaries of the normative argument for analytic conservatism and to consider its alternatives.

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[72] It's important to note that such preferences are massively over-determined and that an efficiency justification is not necessarily a causal explanation.

7. Entry Barriers and Tiebout Competition (co-authored with Patri Friedman)

Abstract: *Existing analyses of Tiebout competition have treated the free movement of people among many jurisdictions as necessary and sufficient conditions for meaningful competition. This paper argues for the importance of entrepreneurial entry – i.e. the creation of new jurisdictions – to the governance market and suggests that barriers to entry should be seen as the primary impediment to robust and effective competition among governments. Innovation requires that entrepreneurs can implement new ideas at low cost, and this entrepreneurship is the only meaningful protection against the threats of centralisation, collusion, rent-seeking, and inertia.*

7.1. Introduction

The existing literature on Tiebout competition has seen individual mobility and the number of jurisdictions as the defining features of meaningful competition among governments. If individuals are free to move among multiple jurisdictions, threats of exit will limit the power of governments and promote institutional innovation (G. Brennan & Buchanan, 1980; S. Sinn, 1992; Tiebout, 1956; Vihanto, 1992). We argue that the costs of creating autonomous new jurisdictions – i.e. barriers to entering the market for governance – are an important and neglected requirement for effective and robust competition. As Israel Kirzner (1973, 1997) and other Austrian economists have argued, the level of competition in a given market does not depend on the number of size of competing firms, but the extent to which the entrepreneurs can enter.

Barriers to entry have been defined variously in terms of pricing behavior (Bain, 1968, p. 252) or cost asymmetries between incumbents and potential entrants (Stigler, 1968, p. 63). These definitions are problematic insofar as they define entry barriers in terms of their supposed effects or exclude some important barriers (Demsetz, 1982; R. J. Gilbert, 1989, pp. 476–478). We here follow Gilbert (1989, p. 478) in defining an entry barrier as 'a rent that is derived from incumbency.' This definition is agnostic on the concrete features which block entry, but captures the essential point that incumbents often have an exploitable advantage which discourages newcomers from entering the market.

This is a wider definition of entry barriers than many will be willing to accept, since it includes rents deriving from scarcity or asset specificity (McAfee, Mialon, & Williams, 2004). While we agree that such rents are often policy-irrelevant, we hope to show that they are an important positive and normative consideration when it comes to Tiebout competition. One cannot understand the incumbency advantage of existing nation states without considering the scarcity rents deriving from sovereignty over land. A narrow definition which excludes such rents is simply not appropriate here. Our broad definition of entry barriers precludes the possibility of their complete absence – industry-specific capital requirements and scarcity rents are unavoidable features of economic life – but this does not rule out the concept of free entry being used as an analytic device and normative standard.

In the case of government, entry entails the creation of a new jurisdiction.[73] New jurisdictions may be formed through the colonisation of an inhabited or uninhabited area, the centralised creation of subnational governmental units, secession, or the collapse of an existing jurisdiction and subsequent state-formation. A barrier to entry in the governance market is thus any rent accruing to existing jurisdictions deriving from the fact that they are established entities. Such barriers are currently extremely high. We argue that lowering entry barriers in this sense is the fundamental challenge for those wishing to promote effective competition among governments. Our definition of entry barriers encompasses the limits of citizen mobility, since immobile citizens provide a captive rent which discourages entry by reducing potential market share (R. J. Gilbert, 1989, pp. 506–508). Entry may also be constrained by institutional barriers, the irrecoverable capital costs of setting up a new jurisdiction, and the perceived legitimacy of existing jurisdictions. Effective competition will be enhanced by the reduction of these barriers to entrepreneurial entry. Many of the problems of monopoly are able to withstand high mobility and decentralisation, but not free entrepreneurial entry.

While our normative assumption is that effective competition is desirable, the positive analysis of this paper is in no way reliant on this assumption. The policy implications of Tiebout competition as a politico-economic phenomenon depend on the answers to a number of auxiliary questions as well as one's normative commitments (Dowding & Hindmoor, 1997, p. 457). Competitive systems of

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[73] Wohlgemuth (1999, 2008) conceptualises the costs of implementing new rules – that is, reforming existing jurisdictions - as barriers to entry. Such barriers are lower in decentralised systems, since there are more opportunities for reform, but this does not require entry in the sense we use it here. Entry requires that entrepreneurs 'start their own country' (Strauss, 1984).

governance involve tradeoffs and some see Tiebout competitions as being seriously harmful on balance (Self, 1993; H. Sinn, 2004). The argument here is the positive one that persistent market-like competition among governments requires low barriers to entry. We see the analysis as providing reasons to lower barriers to entry; others may see it as providing reasons to maintain or heighten them.

7.2. Barriers to entry and Tiebout competition

There has been much work in public choice and public finance on competition among governments (Mueller, 2003, Chapter 9). The classic work in the industrial organisation of the market for governance is Tiebout (1956). Tiebout's paper was a response to the concerns of Musgrave (1939) and Samuelson (1954) that without price signals there is no way for bureaucrats to know what level of public goods to produce. The mechanisms of democracy provided some indication of what people wanted, but the adjustment of government taxation and expenditure to individual preferences was of a very crude nature when compared to the market.

Tiebout turned the conventional approach on its head. It is true that central planners lacked the information to adjust fiscal policy to anything close to efficiency, but many government decisions are made by local, rather than central, governments. While central governments were destined to search for efficiency with only the very unreliable compass of public opinion, the relationship between individuals and local government was very different. Rather than adapting policy to voter preferences, local governments can keep policy constant and allow consumer-citizens to adopt whichever bundle of services best matches their preferences. If consumers can vote with their feet, local government planners do not face the same information deficit as central government planners. In the limiting case with an infinite number of jurisdictions and completely costless movement among them, everyone would get exactly the bundle of policies and public services they most preferred.

In the real world, of course, there can only be a finite number of jurisdictions and there will remain some cost of switching. As the number of jurisdictions rises and the cost of switching falls, though, we come ever closer to the unattainable ideal of complete economic efficiency in governance. All markets have friction caused by distance,[74] imperfect information, and other factors. Still, compared to the central

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[74] Tiebout (1956, p. 422) suggests that the need to make shopping trips constrains the perfect satisfaction of consumer preferences in the same way costs of moving jurisdiction constrains the satisfaction of political preferences.

planner groping in the dark, Tiebout sorting is likely to produce something much closer to the optimum.

The Tiebout model is focused on the *sorting of* individuals into communities which best suit their needs and does not consider the response of governments. More recent work has extended the model by considering the ways in which citizen exit might limit government power (G. Brennan & Buchanan, 1980; de Figueiredo & Weingast, 2005; S. Sinn, 1992) and promote institutional innovation (Stansel, 2012; Vanberg & Kerber, 1994; Vihanto, 1992). On this understanding, the market for governance is somewhat more than a metaphor. Citizens choose among alternative providers of governance, and these providers compete by limiting taxation and efficiently producing the local public goods citizens demand (Buchanan, 1965).

While some of this work has stressed that Tiebout competition is a dynamic process of entrepreneurial discovery, existing analyses have explicitly or implicitly taken the necessary conditions for meaningful competition to be static – a large number of competitors and free movement between them. In practical terms, this would mean that those wishing to foster competition should attempt to geographically decentralise government (Osterfeld, 1989; Tullock, 1994) or increase or protect mobility (Edwards & Mitchell, 2008; Frey & Eichenberger, 1999). Decentralisation and mobility are no doubt important, but, as we argue below, they are not able to deal with a number of serious problems. The more fundamental issue which needs to be addressed if we want meaningful and robust competition – that is, competition which limits predation and promotes innovation in the long run – is the freedom of entrepreneurs to create new jurisdictions.

7.2.1. Collusion

Most analyses of competition among government stress the avoidance of monopoly. While monopoly is certainly one uncompetitive market structure, it is not the only one. Competition is a prisoner's dilemma among competitors: all firms would be better off if they could raise prices and act as a joint monopolist, but each could increase profit by charging a slightly lower price. Without enforceable agreements, such a price-fixing arrangement will unravel and an oligopolistic market will behave much like a perfectly competitive one (Tirole, 1988, pp. 209–

211).[75] When a small number of firms repeatedly interact, however, the prisoner's dilemma is iterated, and we know from theory (M. Taylor, 1976), simulation (Axelrod, 1984), and the field (Ostrom, 1990) that cooperation is common in such situations. While cooperation is desirable for members of the cooperating group, it can be harmful more generally (Cowen & Sutter, 1999) and in the case of market competition, collusion produces inefficiently high prices and low production levels (Feuerstein, 2005; Tirole, 1988, Chapter 6).

Collusion can happen either explicitly, as in a cartel arrangement, or tacitly as each firm seeks to avoid triggering a price war. In either case, firms can maintain a collusive arrangement if and only if they are able to cooperate. There are many factors which facilitate cooperation (Feuerstein, 2005; Levenstein & Suslow, 2006, 2011), one of which is the existence of entry barriers. While the presence of multiple equilibria means that game theory makes no precise predictions about the sustainability of collusion in the face of entry (Shapiro, 1989, p. 379), there are compelling theoretical arguments which suggests that entry prevents collusion in a probabilistic sense.

Collusion allows incumbent firms to earn above-normal profits, and this will attract entrants. If entry is possible, new firms will need to be either brought within the collusive arrangement lest they set competitive prices. While accommodation is sometimes achieved, this is not always the case. Entry barriers are not entirely exogenous, of course. Incumbents may consciously attempt to increase entry barriers by committing themselves to harsh punishment of entrants or by lobbying for restrictions on entry (Levenstein & Suslow, 2006, pp. 74–75). Again, such deterrence is possible but costly and not guaranteed. The empirical evidence supports the hypothesis that barriers to entry are an important determinant of cartel success. Levenstein and Suslow (2006) review a number of empirical studies and conclude that entry is among the most important problems which cartels need to overcome, with a significant proportion of cartels being unravelled by entry.

The governance market exhibits a number of features which suggest that collusion is likely.[76] Cartels are most durable when the number of firms is small (Levenstein & Suslow, 2006, pp. 58–61), when there are industry organisations able to

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[75] This conclusion is based on the Bertrand model of competition. Other models reach different conclusions (Tirole, 1988, Chapter 5).

[76] It is important to note here that collusion does not require profit-maximising governments or any other concrete set of motivational assumptions. As long as policymakers have preferences which differ from those of citizens in some respect, collusion is a valid concern (G. Brennan & Buchanan, 2000, pp. 40–42).

coordinate firm behaviour (Levenstein & Suslow, 2006, pp. 67–75), and when the cartel is able to detect and punish competitive behaviour by firms (Levenstein & Suslow, 2006, pp. 69–72). This describes the governance industry fairly well. There are relatively few countries, coordination mechanisms in the form of supranational organisations such as the OECD and World Trade Organisation, observable policy decisions, and established means of punishment. Recent moves towards tax compliance and tax harmonisation can easily be seen as price-fixing arrangements (Edwards & Mitchell, 2008), with defecting countries dubbed 'tax havens,' blacklisted, and threatened with formal sanctions (Sharman, 2006, 2012; Watt, Elliot, Borger, & Black, 2009).

Even if we saw a one-off decentralisation of power and a dramatic decrease in interjurisdictional mobility, barriers to entry would remain as a potential threat to competition. Any fixed population of jurisdictions could potentially solve the problem of collusion. If it were possible for new jurisdictions to enter the governance market, collusion would be much more difficult. Existing states would need not only to reach an enforceable agreement, but also to find some way of bringing new entrants into the agreement without undermining profitability.

7.2.2. Centralisation

One way competing firms can thwart competition is through merger. Horizontal integration can be expected when it increases profitability after accounting for the costs of merger. One factor enhancing profitability is market power, and thus merger can reduce the level of competition in an industry (Viscusi, Harrington, & Vernon, 2005, Chapter 7). Merger in the governance market involves political centralisation, either through the literal merging of formerly separate jurisdictions (like the European Union) or the transfer of powers from lower to higher levels of government. Such anticompetitive centralisation would not be surprising from a public choice perspective, since local governors are able to increase market power through centralisation (Blankart, 2000; Eichenberger, 1994; Vaubel, 1994).

Centralisation might also happen more innocently. There are many public goods which are most efficiently produced at a large scale, and joint production is often achieved via some sort of federation. Even when such a federation is desirable, it carries the risk of excessive centralisation. The creation of a robust federation – that is, one which neither disintegrates due to internal disagreement nor centralises due to the ambitions of federal bureaucrats or strong member states – is not a trivial

task, and requires careful constitutional craftsmanship (Bednar, 2009; de Figueiredo & Weingast, 2005; Volden, 2005).

The most notable example of an innocently-created federation which later centralised is the United States of America. The Articles of Confederation and the Constitution were significantly motivated by the need to protect against external military threats, and this required a federation responsible for national defence. As the *Federalist Papers* show, however, the framers of the Constitution were aware of the risks of over-centralisation and thought the republic they envisioned gave states sufficient rights to protect against encroachment.[77] While it seems that competition among American states has remained in some areas of business law (Romano, 1985), decision making power has incrementally shifted towards the federal government, especially since the New Deal, and this has undermined Tiebout competition (Greve, 2012; Zimmerman, 2008).

There are potentially large benefits from cooperation among local governments in producing large-scale public goods such as national defence, but creating super-jurisdictional institutions to produce or coordinate the production of such goods carries the risk of over-centralisation. The possibility of entrepreneurial entry mitigates this problem by providing a mechanism for people to opt out of the federation. This is especially important when federation members are not allowed free exit. Assuming that newly formed states have the autonomy to refuse to join the union, centralisation could be reversed. This allows for the benefits of federation while limiting the risks of over-centralisation by providing a fallback option.

7.2.3. Rent-seeking

Another impediment to competition is internal rent-seeking. Members of every organisation have some incentive to manipulate decision making procedures for their own benefit (Milgrom & Roberts, 1988, 1990; Milgrom, 1988), greater heterogeneity in the costs and benefits of organising for collective action make rent-seeking a particularly salient problem in government. Since the costs of collective action increase with group size, small groups with strong common interests will have a disproportionate influence on policy outcomes (Olson, 1965).

Citizen mobility reduces the scope for rent-seeking to some extent, since transfers become more costly as the outside options of the exploited group increase. Without

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[77] See especially Hamilton's discussion in Federalist 17.

entry, however, rent-seeking will remain profitable unless the exit costs of the vast majority of the population are very low. Distributional coalitions exploit their smaller size and greater organisational capacity relative to the exploited public. As more mobile citizens leave, the disparities which allow for rent-seeking will reduce, but moderate switching costs for a large proportion of the public will leave large rents for the seeking.

Olson (1982) argues that organising for collective action is difficult and only happens under the right conditions, but that once formed, distributional coalitions are quite robust. This means that distributional coalitions will gradually proliferate in politically stable societies. These groups will produce market distortions, retard economic growth, and prevent the reforms which would be required to reduce rent-seeking. The power of entrenched interests is particularly important when it comes to decision making rules, since those with the power to make choices have this power by virtue of current arrangements.[78]

Olson argues that interest groups are generally only displaced in periods of political instability. When regimes are overthrown, interest groups are thrown out with them. The new regime which emerges will initially be relatively free of interest groups and may grow rapidly. Olson points to the post-war economic success of Germany and Japan as an example. The problem with relying on instability to reduce rent-seeking, of course, is that the collapse of regimes is normally accompanied by violence and uncertainty. Low barriers to entry in the governance market would allow for the peaceful creation of new regimes free of distributional coalitions. This allows people to escape special interest groups without existing systems being overthrown by force. This produces a 'bloodless instability' in which distributional coalitions are destabilised by entrepreneurial entry rather than revolution (Chamberlain, 2009), much like disruptive innovation already happens in traditional industries.

7.2.4. Policy innovation

While the disciplinary power of Tiebout competition is no doubt important, constraint is not the only effect of competition. Schumpeter (1934, 1942) has pointed out that competition spurs innovation, and Hayek (1948) sees competition

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[78] Congleton (2004) shows that the median voter is benefitted by current degree of suffrage and will not want it expanded absent exogenous change, and Dunleavy and Margetts (2001, p. 295) suggest that stability in voting rules can be explained by the fact that they 'often exclude from political power those with most cause to change them.'

as a discovery mechanism which sorts good ideas from bad. The world is inherently imperfect, but proposed means of improvement are always uncertain. Profit-seeking entrepreneurs make conjectures which are testing against the realities of technological feasibility and consumer demand. Seen in this light, the market is not primarily a mechanism which provides incentives for efficient behaviour and maintains equilibrium; rather, the market is a 'creative process' which generates knowledge. This open-ended process allows producers to discover new products and processes and consumers to discover the consumption bundles which best satisfy their preferences (Buchanan & Vanberg, 1991; Potts, 2001). Numerous small discoveries compound over time to produce technological innovation and economic growth (Baumol, 2002; Mokyr, 1992).

Such conceptions of competition have recently been applied to the Tiebout framework (Vanberg & Kerber, 1994; Vihanto, 1992; Wohlgemuth, 2008). In the governance market, new ideas are introduced by policy entrepreneurs and their value is revealed by citizens voting with their feet. As in markets, this could potentially produce new knowledge – that is new ideas and data about feasibility and desirability – about policy and institutions. As new ideas are produced by entrepreneurs, tested by competition, and emulated by other jurisdictions, we will see increasingly better institutions as judged by individual preference.

Those arguing that Tiebout competition has dynamic effects have revealed an important phenomenon, but there has been little theoretical or empirical investigation of the conditions under which competition produces policy or constitutional innovation. Standard microeconomics takes a representative agent view of firms, and existing dynamic theories of competition among governments have largely followed in treating jurisdictions as homogeneous. Like firms in ordinary markets, (R. R. Nelson, 1991), polities differ, and their differences affect their reaction to competitive pressures.

Firms establish decision making routines in order to economise on decision costs (Cyert & March, 1963; R. R. Nelson & Winter, 1982). These routines are learned from prior experience and are thus well-suited to the environment the firm faced in the past. In stable environments, this allows the firm to operate efficiently, but in rapidly changing environments such routines can prevent desirable organisational change. Routines are maintained by the behavioural norms and values of the individuals who constitute the organisation. Routines evolve slowly and cumulatively as the organisation learns from past experience and cannot be

changed easily (R. R. Nelson & Winter, 1982). As the firm matures and grows larger, inertial forces will become stronger (Hannan & Freeman, 1984, pp. 157–162). This inertia can be exacerbated by 'competency traps': as an organisation gains experience in using a particular routine, its competency with that routine will increase, and short-sighted learning from often-reliable feedback mechanism will lock in suboptimal routines (Levinthal & March, 1993; B. Levitt & March, 1988; March, 1981).

One effect of such routines is that established firms will be relatively unable to seize on the opportunities presented by a changing technological environment. Large established firms do seem to be able to produce 'competency-enhancing' innovations (i.e. those which increase the value of a firm's existing resources), but not 'competency-destroying' innovations (i.e. those which decrease the value of a firm's existing resources), which come primarily from new entrants (Christensen, 1997; Henderson & Clark, 1990; Hill & Rothaermel, 2003; Tushman & Anderson, 1986). The point here is not that new firms are more innovative than incumbents, but rather that new firms and incumbents innovate *differently*, responding to different incentives and behaving differently depending on the technological environment (Acs & Audretsch, 1987, 1990; Winter, 1984). Incumbents can often devote large R&D budgets to research on well-defined problems but will be less effective at producing breakthrough ideas which open new markets. This suggests that high barriers to entry will reduce product innovation at an industry level, and the empirical record seems to suggest that this is in fact the case: high rates of entry in an industry are correlated with innovation and increases in productive efficiency (Caves, 1998, pp. 1971–1975; Geroski, 1995, p. 431). Start-ups are a major contributor to innovation, and this makes barriers to entry an important factor in industry performance.[79]

The evolution of routines described above will also limit the ability of an organisation to remake its formal organisational structure, and other factors add to this difficulty. Hannan and Freeman (1984) argue that most organisational change

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[79] Some might argue with Schumpeter (1942) that barriers to entry will reduce the incentive to innovate by decreasing the rents available to successful innovators. This argument that entry reduces the benefit of innovation needs to be balanced against the counterargument that entry also reduces the cost of innovation. In ordinary markets, the empirical evidence seems to suggest that there is an inverted U-shaped relationship between innovation and competition at the firm level – that is, firms in moderately competitive industries are the most innovative. At the industry level, though, more competition seems to reliably produce more innovation (R. J. Gilbert, 2006). Even if there were a 'sweet spot' between too much and too little entry as far as innovation is concerned, it seems certain that there is currently too little competition in the market for governance as far as innovation is concerned.

comes from the establishment of new organisations rather than the reorientation of existing ones. Firms in modern economies face selection pressures to reliably and predictably produce goods of a certain quality, and must demonstrate accountability to investors and customers. To achieve the goals of reliability and accountability, routines will be highly standardised and rigid. As in the arguments with respect to product innovation described above, this will produce efficient performance in stable environments, but will not allow for much organisational innovation. Organisational change, they argue, happens primarily at the population level as new firms replace old. While some firms are able to successfully remake their organisational structure (Romanelli & Tushman, 1994), the empirical evidence suggests that younger firms are more likely to successfully undergo organisational change (Amburgey, Kelly, & Barnett, 1993; Delacroix & Swaminathan, 1991; Halliday, Powell, & Granfors, 1993; Miller & Chen, 1994).

It is important to note that the relative inability of established firms to engage in product and organisational innovation is not necessarily undesirable. Tightly-constrained routines enable firms to operate more efficiently in stable environments, and predictability and reliability are valuable. Moreover, reform is risky and may only be desirable given extremely low exit costs (G. Brennan & Hamlin, 2004; B. Taylor, 2013). Small new companies and large established ones are complementary: when we combine the inflexible efficiency and reliability of the latter with the high-risk dynamism of the former within a single industry, the performance of the industry as a whole will be greater than if only one type of organisation existed.

These arguments hold *a fortiori* to government. Barriers to product (i.e. policy) and organisational (i.e. constitutional) innovation are much higher in established governments than they are in established firms in traditional industries. Like other organisations, governments as producers of policy establish routines which can lead to inertia. In democracies, there are many such inertial forces which tend to make the implementation of bold ideas unlikely: tight agenda-control (Tullock, 1981), party platforms shifting to match the preferences of the median voter, and various institutional barriers which dampen and delay the influence of public opinion on public policy (Riker, 1982) all work to thwart the generation of novel governance experiments. Further, the life-cycle dynamics of organisations described above mean that inertia will increase over time. This becomes particularly obvious when we consider the fact that policy-making and implementation is heavily influenced by the bureaucracy. Downs (1965, 1967)

looks at the incentives facing bureaucrats and concludes that the establishment of routines which give rise to inertia is a rational response to pervasive knowledge problems and the difficulty of reforming large hierarchical organisations.

The problems of changing constitutional structure in place are even more serious. In addition to the inertia all organisations share in terms of their fundamental organising principles, constitutions are designed as enduring barriers which limit the rule-making power of governments (G. Brennan & Buchanan, 2000). As such, they are normally protected from change by institutional features such as supermajority requirements. While constitutions are subject to implicit change and can be undermined in various circumstances (Ackerman, 1991; Higgs, 1988; Voigt, 1999), the basic constitutional structure of the United States has not changed since 1787. Again, this stability may be desirable given the current competitive environment, but this should not blind us to the costs of such stability. The world has change a great deal since the constitution was drafted, and it is implausible that the optimal constitutional structure has remained unchanged given massive reductions in communication costs, serious demographic change, several generations of political theory, and a wealth of new empirical data on the effect of constitutions.

With free entry, the problems of organisational inertia are effectively sidestepped. Rather than struggling against the status quo, institutional entrepreneurs could found start-up jurisdictions in order to test ideas at a smaller scale than would be possible even in a very competitive governance market with a fixed population of established jurisdictions. Such an experimental economy of governance would be more conducive to innovation, which is surely a significant benefit of competition.

7.3.   Relevance and implications

The notion of entrepreneurs starting their own jurisdictions is often considered outlandish, and this may explain the neglect of entry barriers among political economists.[80] If we are stuck with a more-or-less fixed population of jurisdictions, any talk of the implication of low barriers to entry is hypothetical and irrelevant to any serious political discussions. While such a stance is understandable in light of the geopolitical status quo, we maintain that it is mistaken and speculate that it

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[80] It should also be noted that Tiebout effects in general are sometimes dismissed as a 'fairy tale' (Newton, 1997). Such critiques, as far as we can tell, are based on serious misunderstandings the Tiebout model and the ambitions of analytic social science in general (Dowding & John, 1997).

results from an excessive focus on the short term. The current geopolitical system of nation states is a relatively recent development, and a number of alternatives have existed at various points in history (Spruyt, 1994). It is far from obvious that the current system is stable in the long term. In this section we show that we have seen high rates of state formation in the past and suggest that we may do so in the future.

7.3.1. History

There have been a number of historical contexts with low entry barriers judged by today's standards. Frontiers provide a space for new entrants in the governance market, and have played a major role in institutional development. People generally settle frontiers to exploit economic opportunities. The absence of pre-existing political arrangements, though, creates the need and opportunity for institutional innovation at the same time. And so throughout history, we have seen new frontiers, with their abundant space and lack of entrenched interests, giving rise to new forms of political organisation.

The European settlement of North America in the seventeenth and eighteenth centuries shows this dynamic at work. The open space of this frontier allowed many new jurisdictions to be formed. Colonies, some of which were explicitly for-profit enterprises, had a great deal of independence and varied in their approach to governance. With an abundance of land and a shortage of people, colonies needed to attract residents to survive and grow. Settlers were comparatively mobile and good rules would give a colony an advantage in the competitive struggle for citizens. Moreover, it was possible to start a new colony, as those sick of religious persecution in the Massachusetts Bay colony did in founding Rhode Island in 1636. We thus saw comparatively low barriers to entry and low switching costs in this market (Billias, 1965; Doherty, 1999; Greene, 1994; Hughes, 1965, Chapter 2; Osgood, 1904). In addition to the colonies, many towns had *de facto* autonomy. Many of these were founded as for-profit enterprises and similarly competed for mobile settlers (J. Martin, 1991). Churches and various culturally-specific governance providers added to the diversity (Auerbach, 1983, Chapter 1), and the result was many new entrants into the governance market competing for citizens.

As the space on the East coast became scarce, the frontier shifted west. Those settling the Old West became institutional entrepreneurs and devised a number of ingenious ways of solving collective action problems. Some new institutions were entirely voluntary and decentralised, while others began to resemble states

(Anderson & Hill, 2004). As the American frontier closed and power slowly centralised, the forms of government that resulted from this innovative period turned out to be a significant improvement over their European predecessors. The compound republic of the United States was a unique combination of features from other past and contemporary political systems, and its constitution has served as a model for new and reforming nations since that time (Blaustein, 1987; W. J. J. Brennan, 1991).

Another suggestive example is the Greek city state culture, which consisted at any one time of around 100 self-governing (though not always entirely independent) *poleis* scattered around the Mediterranean and Black seas. During the fourth century BC, the total population of these poleis was probably at least 7.5 million (Hansen, 2006, pp. 31–38). New cities were formed via colonisation. Upon settlement, each colony would be an independent polis with its own laws and constitution. While settlement was often directed by existing *poleis,* this was not always the case. Some colonisation efforts were undertaken by groups of individuals without any formal sanction. There were two significant waves of colonisation: from 750-500 BC, many colonies were founded in the Mediterranean and Pontic regions, and from 331-200 BC, as many Greek colonies were founded in the former Persian Empire following the victory of Alexander the Great over Darius III (Graham, 1964; Hansen, 2006, Chapter 5; Tsetskhladze, 2008).

During this time, entry barriers were low and we saw a great deal of state formation. As our theoretical argument would predict, Greek city states were highly competitive and innovative. Due to cultural and linguistic similarity, among other factors, the Greeks were 'unbelievably mobile and unbelievably easy-going about letting strangers settle in their cities' (Hansen, 2006, p. 34). Each polis faced a genuine risk of being eliminated through desertion or conquest and were forced to compete in various ways, including the attraction and retention of citizens (Ober, 2008, pp. 80–84).

The result was a robust system of competition and cooperation which limited government power and produced a number of institutional innovations. As Ober (2008) argues, Athenian democracy was, relative to alternative systems at the time, a very effective system of making wise collective decisions and anticipated many modern findings in the social sciences. Democracy in general was at the time often maligned as leaving governance to the incompetent masses. In this respect, the practice of democracy downplayed the role of experts and sought to aggregate the

dispersed knowledge of many individuals, the importance of which would later be described by Hayek (1945) and others (Ober, 2008, Chapter 1). The selection of representatives by lottery anticipated the argument of Mueller et al (1972) that randomly selecting representatives does a better job than current democratic practice of aggregating preferences by avoiding the problem of rational ignorance. The structure Athenian political institutions such as the Council of 500 anticipated findings in modern network theory, creating bridging ties between otherwise isolated groups to facilitate the flow of information (Ober, 2008, pp. 142–151).

Further, the Greek system allowed for a large degree of federalist cooperation and coordination without endogenously centralising or resulting in collusion. The most important institution facilitating this cooperation was the *koinon* – a federation of city states. *Koina* served a number of economic and political purposes. They facilitated trade by increasing intra-koinon mobility and issuing standardised coins, cooperated militarily by producing regional public goods such as garrisons and sanctuaries, and obliged other poleis to help in times of crisis (Mackil, 2013). While this cooperation produced political institutions and organisations above that of the poleis, and the koinon has been characterised as a 'federal state' (Larsen, 1968), Greek federalism was bottom-up rather than top-down, and cooperation did not lead to centralisation or collusion.

While these examples are by no means conclusive, the fact that two of the most robustly competitive and institutionally creative governance environments in history were characterised by low barriers to entry is suggestive. We admit that more careful empirical investigation is needed, but at the very least the coexistence of entry and competition in these examples provides reasonably strong evidence in a Bayesian sense.[81]

7.3.2. Future

Given that the frontier has closed and political borders (at least in the developed world) are relatively stable, our argument may seem pessimistic: we have benefitted from the innovations of the past, but perhaps we are now in an eternal period of institutional stagnation. We suggest otherwise. Secession is always a possibility (Buchanan & Faith, 1987; Gordon, 2002; Sorens, 2011), and there are a

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[81] i.e. the observation that the two most celebrated systems of competitive government were characterised by low barriers to entry is more likely to occur if our hypothesis is correct, and thus a rational truth-seeker confronted with this evidence should increase their estimated probability of the hypothesis being correct.

number of unorthodox proposals for reform which would allow for the regular formation of new polities.[82]

Sub-local forms of governance such as neighbourhood associations and private subdivisions are already common (Boudreaux & Holcombe, 1989; Foldvary, 1994; MacCallum, 1970; R. H. Nelson, 2005). While these private communities currently enjoy only limited rule-making autonomy, various proposals have been made to combine decentralisation with institutionalised secession rights (Foldvary, 2002; Kling, 2009, Chapter 3; R. H. Nelson, 2005, Chapter 20). Rules which allowed local groups or entrepreneurs to opt out of existing rules and create their own communities would drastically reduce entry barriers to the governance market, though the political feasibility of this approach presents its advocates with a serious challenge (P. Friedman & Taylor, 2012, pp. 219–222).

Another approach is based on expanding the scope of existing special economic zones to create entrepreneurial 'start-up cities' (Caceres, 2013; Strong & Himber, 2009) or 'charter cities' (Romer, 2010). Charter cities would export the legal systems of developed nations to uninhabited areas of undeveloped ones. Start-up cities would involve for-profit entrepreneurs contractually creating a new subnational jurisdiction with significant authority within the borders of some other states. Each of these approaches posits a plausible means through which a legal framework which would allow for the creation of new jurisdictions.

A third approach – and the one we generally prefer – is 'seasteading' (P. Friedman & Taylor, 2012).[83] Seasteading is the creation of politically autonomous communities on the ocean, on ships or, in the long term, larger and more stable structures perhaps modelled on oil rigs. By relocating 12 nautical miles from land, entrepreneurs can effectively start their own country. While the freedom of the seas is far from absolute or inviolable, the current regime of maritime law provides for a significant degree of internal autonomy which could be used to create settlements with innovative governance structures.

Additionally, under the flagging system of admiralty law, a vessel essentially franchises the sovereignty of an existing state via the annual, virtual, commercial

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[82] On the contractual nature of such enterprises in general, see Bell (2012).

[83] 'Seasteading' is a portmanteau of 'sea' and 'homesteading,' the idea being that the ocean is a vast area of unclaimed space ripe for settlement (and possibly initial acquisition in a Lockean sense, though this is in no way a necessary aspect of seasteading). See generally the Seasteading Institute's website at http://seasteading.org.

relationship of registering with their ship registry. This allows jurisdictional competition without the physical costs of relocation, since the vessel can change policy bundles via a new flagging agreement without the citizens needing to physically relocate. It also makes it easy to form dynamic federations where entry and exit are guaranteed under current international law.

Cruise ships and oil rigs show that life at sea is feasible given a sufficiently strong economic incentive, and pirate radio and gambling ships show that such an incentive can come from the costs of regulation on land. As commercial operations on the ocean drive innovation in seafaring technology and increase the legal and political knowledge required to co-exist with incumbent states, barriers to entering the governance market decrease.

The future of governance has yet to be written. Some predict – either with dread or jubilation – the emergence of a single world government or a centralisation of power in large regional states (Marchetti, 2008; Wendt, 2003). At the other end of the scale of possible futures is a decentralised system of many thousands of autonomous competing governments (Barber, 2013; P. Friedman & Taylor, 2012; MacCallum, 2003; R. H. Nelson, 2005). The default assumptions that the number of nations or the height of entry barriers will remain roughly the same are not well supported by theory or history, and so it behoves us to understand how these changes will affect political rent-seeking and institutional evolution.

7.4.   Conclusion

A number of political economists have argued that giving citizens more freedom to vote with their feet would improve political outcomes by disciplining governors and allowing for institutional innovation. We share this judgment, but the argument presented above suggests that bringing about a more competitive system of government may not be as simple as has commonly been supposed. It is not enough to simply give citizens greater freedom of movement; entrepreneurs must also be given the freedom to enter the governance market. Competition can be undermined by collusion, centralisation, special-interest capture, and inertia. Entry mitigates each of these problems and would produce a robustly more competitive system of governance.

We have offered some anecdotal evidence for our claim, but more rigorous empirical work is required before our hypothesis can be fully accepted. We have strong evidence that entry promotes and protects competition in other markets, but

the peculiarities of the market for governance should not be underplayed. Still, the theory and evidence we do have points us towards the conclusion that entry barriers do matter for Tiebout competition. The absence of serious investigation of entry, while understandable, means that there is a large gap in our empirical and theoretical knowledge of Tiebout competition.

8. Seasteading: Competitive Governments on the Ocean (co-authored with Patri Friedman)

Abstract: Those advocating reform to increase competition among governments are caught in a catch-22: they recognise that competition is needed to improve rules, but seek to increase competition by changing the rules. Reforms emerge from the strategic interaction of political actors, and the only way to robustly alter the institutional equilibrium is to alter the non-institutional factors which structure the game. Developing the technology to enable seasteading – the establishment of permanent, autonomous communities on the ocean – strikes at the root of uncompetitive government and sidesteps the problem of reform.

8.1. Introduction

A number of political economists and activists have seen the potential to improve government performance by subjecting governments to competition for mobile residents. Giving citizens greater choice of governance providers would allow for the sorting of individuals into jurisdictions by demand for public goods (Oates, 1972; Tiebout, 1956) and social policy preference (Francis & Francis, 2011; Janeba, 2006; King, 2005), force governors to give citizens the policies and public goods they want at reasonable tax rates (G. Brennan & Buchanan, 1980; S. Sinn, 1992), and enable innovation through decentralised experimentation (P. Friedman & Taylor, 2011; Vanberg & Kerber, 1994; Vihanto, 1992; Wohlgemuth, 2008).

A number of reforms which would increase competition have been suggested, including the devolution of power to lower levels of government (Buchanan, 1995; Osterfeld, 1989; Tullock, 1994), the creation of private residential communities with greater autonomy (Foldvary, 1994; MacCallum, 1970; R. H. Nelson, 2005), the unbundling of governance services to allow greater choice and competition (Eichenberger & Frey, 2002; Frey & Eichenberger, 1996, 1999; Kling, 2009, Chapter 3), and the creation of 'free zones' (Strong & Himber, 2009; Strong, 2009) or 'charter cities' (Romer, 2010) on unoccupied land within existing jurisdictions. The problem with these proposals is that they all rely on the reform of existing institutions or the consent of existing governments. In a competitive market for governance, we should expect governments to make such concessions; in the current uncompetitive system, we should not. This produces a classic catch-22

situation: we need to increase competition in order to improve policy, but we also need to improve policy in order increase competition.

Escaping the current monopolistic equilibrium requires us to focus on the non-political determinants of competition: the geographic and technological environment in which governments are embedded. To robustly improve governance, we need to intervene at this bare-metal layer rather than attempt to directly reform existing policies or institutions. We propose an unorthodox form of intervention which we argue would achieve this goal – developing the technology to create permanent, autonomous settlements on the ocean. Settling the ocean – seasteading – would open a new frontier. The freedom of international waters allows for the introduction of new competitors into the governance market without reforming the old system, and the fluidity of the ocean – which allows large objects to be moved cheaply – would make for a more competitive market in the long run.

In section 8.2 we develop a three-level understanding of politics, with each level being shaped by the one above. We draw out the implications for policy and constitutional reform, arguing that the most effective and robust point of intervention is at the environmental level. Section 8.3 outlines how seasteading would work, describes the challenges involves, and argues that these are not insurmountable. Section 8.4 concludes.

8.2. Rules as emergent phenomena

Politics is a spontaneous order, with lower-level outcomes shaped by higher-level incentives. Public choice theorists have recognised that policy choice is structured by constitutional rules but have largely ignored the higher-level incentives which shape constitutional choice. Advocates of competitive government have recognised the incentives which shape institutional development but have paid insufficient attention to the non-institutional factors which limit competition. In this section, we consider politics as existing at three levels – rules, meta-rules, and the competitive environment – with each level being influenced by those above.   This understanding of politics suggests that robust improvements in policy are most likely to come from changes in the competitive environment.

8.2.1. Three levels of politics

Policy-focused economists rightly see economic outcomes as emerging from the interaction of many individuals acting under constraints. This imposes limits on the

extent to which policy-makers can intervene to alter outcomes. Thus, economists will tend to see price controls as foolish: prices emerge from supply and demand and any attempt to centrally direct this emergent process is doomed to failure. What policy advocates are forgetting is that the same problems which prevent certain policies from working as intended also prevent worthwhile reforms. The political system comes with its own incentives which stymie the efforts of well-meaning reformers. Just as a failure to appreciate the lessons of economics leads some to think that prices can be changed at will, a failure to appreciate the lessons of public choice theory leads some to think that policies can be changed at will. Thus, an understanding of public choice theory makes economics 'a discipline which both conceptualises improvements in politics but simultaneously shows why such improvements must remain unrealised' (Wegner, 2004, pp. 339–340).

Public choice theorists stress the need to distinguish between two levels of politics (G. Brennan & Buchanan, 1980; Buchanan & Tullock, 1962). At the first level is the workaday politics in which rules for governing human behaviour are created, altered, and repealed. Shaping this level, though, are the meta-rules which exist at the constitutional level. Democracies and autocracies each provide different incentives for the creation of rules. Within the broad classification of democracy, various specific meta-rules on how representatives are elected, how decision making power is distributed, and how branches of government interact each have a significant impact on the rules which are eventually created.[84]

While lobbying representatives, campaigning for political candidates, or influencing voter preferences may have some effect at the margin, changing constitutional meta-rules has the potential to more effectively and robustly improve policy outcomes (G. Brennan & Buchanan, 2000; Buchanan, 1975b). If we are worried about the civil liberties of minorities, for example, giving minority views a greater weight in collective decision making is likely to be a more effective way of protecting them than advocating particular non-discriminatory policies.

Buchanan (1984) describes public choice theory's rejection of the benevolent despot model of government as 'politics without romance.' However, public choice-inspired constitutionalism is not completely free of romance, since constitutional meta-rules are generally considered as above ordinary politics. A central move in constitutional political economy is to posit a 'veil of uncertainty' similar to Rawls's (1971) veil of ignorance but with the slight advantage of being

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[84] See Mueller (2003) for an extensive and rigorous survey of public choice theory.

real: since constitutional rules are general and long-lasting, individuals will not know which rules will suit them best. The position of would-be constitution-makers is similar to that of players in a card game. Before the cards are dealt, nobody knows which particular rules will be to their advantage, and they will rationally agree to rules which maximise aggregate wellbeing (G. Brennan & Buchanan, 2000, Chapter 2; Buchanan & Tullock, 1962, pp. 77-80).

Constitutionalists are correct that intervention at the constitutional level provides greater leverage than at the policy level. The constitutional level of choice, however, is not above the problems of politics. Constitutional rules require enforcement and can be broken or circumvented through liberal interpretation (De Jasay, 1989; Farrant, 2004; Tullock, 1987; Voigt, 1999), special interests can influence constitutional choice (R. McGuire & Ohsfeldt, 1986, 1989; R. McGuire, 1988; Parham, 2010), and problems caused by expressive political behaviour can be exacerbated at the constitutional level (G. Brennan & Hamlin, 2002; Crampton & Farrant, 2004). Public choice theory makes the reason that we have bad rules clear: we have bad meta-rules which are resistant to change. That merely shifts the question one level higher, however: why do we have bad meta-rules? This question has received much less attention by public choice theorists.[85]

Government, whether we are thinking in terms of rules or meta-rules, is not some unitary social actor but rather a spontaneous order emergent from the interaction of various political actors constrained by their environment and each other (Wagner, 1993). Focusing analysis and intervention at the constitutional level is a big improvement over policy analysis and activism, but it still misses the more fundamental incentives driving outcomes. Constitutional reformers are asking the same decision making rules which they have just argued tend to produce bad policy to produce good meta-policy (Wegner, 2004; Witt, 1992). The persistence of bad constitutional rules despite the advice of public choice theorists is a strong indication that all is not well at the constitutional level of choice. Rather than being at the very top, guided by enlightened self-interest, constitutional rules emerge from human interaction and change only according to the incentives of the environment.

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[85] A notable exception is the work of Lowenberg and Yu (1990, 1992; Lowenberg, 1992), which considers the environment in which constitutions are made and concludes that exit is crucial in ensuring that good meta-rules are chosen. Competition acts as a substitute for the insufficiently-thick veil of uncertainty.

An important aspect of the meta-constitutional environment is the level of jurisdictional competition. If citizens have a choice of governance providers, they will tend to move to those which best meet their needs. This would allow people with similar policy preferences to group together, constrain governors, and encourage innovation; improving policy both directly and indirectly by improving constitutional rules.[86]

What we really care about in any market is the range, quality, and price of products. In the market for governance, we care about the range, quality, and price of policy bundles. We would think it rather unhelpful if someone suggested that we could get better customer service in an industry if firm representatives were friendlier and more informed. Surely the firms know this, and their customer service is constrained by other factors - the wages they are able to offer representatives, the marginal value to customers of better service, the competitiveness of the industry, the length of the customer relationship and ease of switching, and so forth. Yet when an economist advocates for a better policy, they are essentially doing the same thing - ignoring the true constraints that produce existing policies. Constitutional reformers such as Buchanan give a better answer - in our metaphor, they are suggesting changes to the organisation of the firm that should lead to better customer service. While this reflects a deeper level of understanding, it is still missing the bigger picture: what competitive pressures exist to encourage firms in this industry to optimise their organisation? By thinking of governance as a product, we can see the limitations of constitutional analysis - namely the lack of incentives the industry has to innovate constitutionally.

Competitive industries have good products because they have good firms. They have good firms because of the discipline imposed and experimentation enabled by competition, which is the root cause of the end result of product quality. The same logic suggests the opposite outcome for government, as it is an industry characterised by a series of geographical monopolies with high barriers to entry for producers and high switching costs for consumers. The lack of competition leads to little pressure to evolve good meta-rules, and the flawed meta-rules lead to flawed policies.

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[86] The case for competition among governments has been made sufficiently well elsewhere, and we will not rehearse that argument here. See generally S. Sinn (1992), Breton (1996), and Frey and Eichenberger (1996). On specific benefits see the sources cited in the introduction above.

8.2.2. The catch-22 of reform

There are a number of reasons for thinking that existing governments are unlikely to implement changes in order to increase competition. First, established organisations – particularly large and long-established ones like typical national governments – are generally resistant to change (P. Friedman & Taylor, 2011). All organisations establish routines to lower decision making costs and increase certainty, and these will tend to reduce innovation and structural change (Cyert & March, 1963). More importantly for institutional change, special interests wishing to maintain the status quo and the power to block proposed changes will accumulate over time. Olson (1982) argues that organised distributional coalitions form only rarely, but are very resilient once established. Organised interest groups will tend to make political equilibria quite stable (Munger, 1998, pp. 135–138). Interest groups tend to have an interest in maintaining the status quo, since it is the status quo which has given them their current level of power. Mokyr (1994) describes the way in which technological regimes produce interest groups with an incentive to block technological innovation and institutional change, and electoral rules are very stable since they 'often exclude from political power those with most cause to change them' (Dunleavy & Margetts, 2001, p. 295). The governing party and median voter have existing electoral institutions to thank for their privileged position, and will generally not be in favour of reform (Congleton, 2004). Institutions tend to be very resilient when they provide benefits to those with the power to decide their fate.

This makes institutional reform to encourage competition among governments particularly unlikely, since this would involve governments acting to reduce their own market power. Elites will enact reforms which reduce their own power when forced to do so by circumstance. Autocratic rulers, for example, might extend voting rights to subjects when threatened with violence (Acemoglu & Robinson, 2000) or exit (Congleton, 2011; Engerman & Sokoloff, 2005).[87] Electoral

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[87] Strong (2009) suggests that dictators could be given equity in free zones, thus incentivising them to allow for institutional competition to promote economic growth. While this idea has much merit and similar incentives have undoubtedly driven the past creation of special economic zones, the extent to which this will encourage competition is limited to the extent that it reduces the dictator's monopoly power. A rational dictator will maximise the discounted value of resources extracted from subjects. Security in extraction will prompt the dictator to expend some resources in promoting production, but such investment will remain well below the socially optimal level (M. McGuire & Olson, 1996; Olson, 1993). Indeed, dictators already have these incentives to increase production and one strategy they use is the creation of special economic zones. The incentive Strong identifies is already part of the equilibrium.

competition could potentially produce a similar outcome: if voters demand reform to encourage jurisdictional competition, vote-seeking politicians would be forced to supply it (Wittman, 1995). While we cannot review the arguments against such democratic efficiency here,[88] we would point out that the argument for interjurisdictional competition presupposes that electoral competition is not up to the task of disciplining governors. That is, the case for this desirable institutional reform is based on the idea that many desirable institutional reforms are unlikely given current conditions. If we could expect current governments to make wise decisions, we would not need them to change their decision making procedures. Thus, beneficial institutional change is likely if and only if it is not required.[89]

While governments do sometimes devolve power, the general trend seems to be towards political centralisation and the restriction of jurisdictional competition, despite some mild decentralisation since the 1970s (Oates, 1999, p. 1145; Sorens, 2009; Tilly, 1990, pp. 45–47; Vaubel, 1994, pp. 151–153). Such centralisation is to be expected from a public choice perspective, since local governments can increase their monopoly power through such measures (Blankart, 2000; Eichenberger, 1994; Vaubel, 1994). There are also other means through which governments can restrict competition. Cartels are apt to form when there are a few major players and high barriers to entry. This describes the governance industry fairly well, and supranational organisations such as the United Nations and World Trade Organisation can act as coordination mechanisms to enforce cartel agreements. Recent moves towards tax harmonisation can easily be seen as a price-fixing arrangement (Edwards & Mitchell, 2008).

The incentives of the current political ecosystem evidently do not favour the significant decentralisation of power or the promotion of competition, and any attempt at decentralisation through reform must clash with those incentives. A more competitive market for governance is the most promising way of improving the range and quality of rules, but reforming existing jurisdictions from within is an unlikely way of bringing about such a situation.

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[88] But see especially Olson (1982) and Caplan (2007).
[89] Dwight Lee (1989) makes a similar argument with respect to the impossibility of a desirable minimal state. Government power can be limited if and only if such limitation would be undesirable.

8.2.3. Technological intervention

To robustly improve government, we need to promote competition by lowering the cost to consumers of switching governance providers (S. Sinn, 1992) and the barriers to new firms entering the governance market (P. Friedman & Taylor, 2011). The standard structure-conduct-performance paradigm of industrial organisation sees such market conditions as determined by factors exogenous to the firm, such as technology and demand (Carlton & Perloff, 2005, p. 3). Likewise, to see what ultimately determines the conduct and performance of government, we need to consider factors exogenous to politics.[90] Ideology, culture, geography,[91] and many other factors surely play a role, but cannot realistically be changed. Meanwhile, a factor which is constantly changing through concerted human action is technology.[92] This is the level at which the equilibrium may more realistically be disrupted.

The rise of the modern state is intimately connected with technological development (Márquez, 2007). Changes in military technology increased economies of scale in warfare and gave large national states with the power to support standing armies an advantage over smaller rivals (Tilly, 1985, 1990). Effective control of a region required a number of technologies such as censuses and communication technologies to render subjects 'legible' (Scott, 1998). Technologies can also decentralise power. Some argue, for example, that anonymous communication and exchange through digital currency and strong cryptography would allow people to escape government control (D. Friedman, 2008; Ludlow, 1996, 2001). Technology has dramatically lowered the cost of moving capital across borders and thus increased international tax and regulatory competition (R. McKenzie & Lee, 1991). Current technological developments may be lowering the costs of individual mobility and making the threat of jurisdictional exit more credible (MacCallum, 2003). More importantly for our argument, technological change can also open new frontiers. A useful way of thinking about the frontier is as the point at which the net economic value of some resource

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[90] Industry structure does feed back upon barriers to entry and switching costs, however: switching costs are partly determined by the geographic size of governance providers, and an uncompetitive industry will facilitate anticompetitive behaviour on the part of incumbents which makes entry more costly.

[91] While the geographic environment cannot easily be modified, locational decisions can be made for political reasons. Scott (2009) argues that moving to hilly areas beyond the reach of states can be a deliberate strategy of state-avoidance. Seasteading can be seen in this light, but the role of technology in opening frontiers is crucial.

[92] The overall direction of technological change is undirected (Arthur, 2009), but human agency is effective in the development of particular technologies.

becomes positive (Anderson & Hill, 2004, pp. 10–11). The new technology of the railroad, for example, gave land in the American west positive value to non-Indians, bringing it within the frontier. This allowed new settlements outside the reach of any state and thus lowered barriers to entry in the governance market.

Technological innovation, then, can be a form of political activism. A significant advantage of technological activism over policy and constitutional activism is the relative ability of humans in each area. Humans have shown themselves to be extremely capable of solving very difficult technological problems, and technological progress has been extremely rapid in recent centuries. We are much less capable of solving large-scale social problems. While people in small, continually-interacting groups are able to creatively overcome collective action problems (Ostrom, 1990), the problems endemic to large governments are testament to our incompetence in large-scale social organisation. By reducing the political problem of how to improve rules to a technological problem – even a very hard one – we shift the challenge into the realm of human capability.

The ocean is a wide open space with potential value in (among other things) its flexible regulatory environment and potential as a blank canvas for socio-political experiments, but this value is currently not exploited at any significant scale. There are a few examples of people taking to the sea to secure greater freedom, which we describe in the next section, but the total population of the sea has remained low. Developing the technological, economic, and legal knowledge required to settle the oceans would make the governance industry radically more competitive and innovative.

8.3.   Seasteading

It may seem strange to argue that the way to improve policy is to settle the oceans, but the above analysis suggests that this unorthodox strategy is more likely than conventional political activism to significantly alter policy outcomes. We know that existing systems are robust against substantial reform, and that lowering barriers to entry allows potentially disruptive competitors to enter an industry. Some of these competitors will find new forms of organisation at the constitutional level which will increase innovation and efficiency at the policy level. To do this, we need a new frontier – a blank canvas on which social or constitutional entrepreneurs can create their products and test them in reality by seeing if they can attract citizens. In the long term, space might provide such a frontier, but right now it is far too expensive. In the shorter term, we have the ocean.

Seasteading is the establishment of permanent, autonomous communities on the ocean – homesteading the high seas. This could be done on modified ships or, in the longer term, on innovative designs resembling oil platforms. While *de jure* sovereignty may be desirable in the long term, the medium-term goal is simply *de facto* autonomy: seasteads will not be recognised as sovereign by other countries or be granted a seat at the UN for some time. Seasteads would be places where profit-seeking entrepreneurs or groups of individuals motivated by other concerns could establish permanent settlements with the power to set their own rules. Early seasteading communities will likely be single vessels, while in the longer term we may see clusters of multiple vessels joining to take advantage of economies of scale while retaining individual or small-group mobility. Seasteading communities would be forced by their environment to compete with each other and with land-based states for residents.

 The biggest advantage of the ocean is its lower barriers to entry in the governance market. Since existing states claim sovereignty over every piece of land and are reluctant to sell, the barriers to entry are extremely high. Under international law, even a small rock extends resource rights in a 200nm circle, and hence states vigorously defend their ownership. While the cost of creating marine real estate will not be insignificant, it is only moderate by first-world real estate standards. The cost of space on early seasteads will be comparable to that in major American cities, and will decrease rapidly with scale and technological development (Petrie, 2011; Roddier & Aubault, 2010). Seasteading makes starting a new government difficult but possible.

Insofar as it opens a new frontier on which to experiment, seasteading makes the ocean a substitute for land. Unclaimed land would be preferable, but there is none available. The ocean, though, has a further political advantage over land. The physical properties of water make it cheap to move large objects, which is how cargo ships enabled worldwide trade. In terms of seasteading, this would mean that buildings are not tied to a particular patch of ocean surface, but could move around. This sort of dynamic geography (P. Friedman, 2004) has three principle political advantages.

First, it lowers the costs of switching government. If a family owns its own floating structure and becomes dissatisfied with the government it belongs to, it can simply sail away to another jurisdiction: with dynamic geography, people can vote with their houses. This lowers the cost of switching and thereby makes the market for

governance more competitive. Of course, people are tied in place by more than the difficulty of moving their possessions from one home to another. Mobility is surely limited far more by work and social obligations than by the physical costs of relocation (T. Lee, 2010). The possibility of voting with one's house will therefore have only a minor effect on competition. The ease of relocation will be much more beneficial to businesses. Some businesses will remain tied in place by specialised staff tied in place by social factors, but others will be more footloose. Since competitive governments will respond to marginal consumers, this will increase governance quality even when most people and firms have significant costs of exit.

Second, dynamic geography addresses the concern of Caplan (2001) that Tiebout competition is undermined by the fact that governance quality is capitalised into real estate values. When land is tied to a particular jurisdiction, reductions in the quality of governance will immediately lower land prices. This means that landowners have no incentive to exit bad jurisdictions, since they have the choice between putting up with low-quality governance and taking a capital loss when they try to sell. Fascinatingly, however, this is not the case on the ocean. Since floating real estate can be moved between jurisdictions, the value of floating real estate is not permanently reduced by a property tax increase, because there is the alternate use of moving the real estate to a new jurisdiction. This restores the property of a well-functioning market, where goods go to their highest-valued use. Floating real-estate will move to the jurisdiction where it is the most valuable whenever the value difference is greater than the cost of moving it. This cost will be substantial, yet based on the cost of moving oil platforms, is likely to be a small fraction of the value of the real estate. Thus, exit remains a check on government power on the ocean.

Third, dynamic geography allows jurisdictions to fail more gracefully. Olson (1982) argues that politically stable societies gradually accumulate and entrench powerful interest groups able to harvest social resources through rent-seeking. This impedes economic growth and makes the vast majority of the population worse off. When the prevailing political system is overthrown, the special interests are thrown out and we are likely to see better policy. Olson argues that the post-war performance of Germany and Japan, as well as a host of other countries, confirm this hypothesis. Unfortunately, political instability tends to be accompanied by bloodshed, producing a tradeoff between peaceful stability with high levels of rent-seeking and violent instability with low levels of rent-seeking. Seasteading allows us to have political instability without bloodshed (Chamberlain, 2009). If rent-

seeking becomes too harmful in an ocean polity, the population will gradually float away. This allows the polity to die without being overthrown violently. Dysfunctional governments would no longer take up valuable land, but would wither and die based on the preferences of citizen-consumers.

While not everyone will want to live on the ocean, the greater possibility of exit will put competitive pressure on land-based nations and thus produce benefits for land-lubbers. Since firms respond to marginal consumers, a majority of citizens could be tied in place and still enjoy the benefits of competition. Moreover, the small-scale experiments enabled by seasteading will produce knowledge spill-overs with the potential to inform constitution and policy-making on land.

8.3.1. Historical precedents

While seasteading in its fullest sense has not yet occurred, there have been a number of near hits, where enterprising individuals used the freedom of the ocean to do things they cannot do on land. Some have been motivated by profit; others by principled opposition to prevailing laws. Where they differ from seasteading is in their narrow focus on a specific problem.

Prior to the Second World War, a number of ships off the U.S. coast operated as floating casinos. Existing just outside territorial waters, these ships could legitimately provide gambling services. The US government, however, did not appreciate its citizens having a place to gamble and exceeded their territorial limits by shutting down some casinos. After the Second World War, it became a crime to own or transport people to a gambling ship (Strauss, 1984, p. 140).

In the 1960s, a number of pirate radio operators used the freedom of the seas to provide commercial radio to the countries of Europe. This gave consumers what they wanted and also imposed competitive pressure on existing states, which eventually liberalised broadcasting laws. Before this liberalisation, though, the government harassed pirate broadcasters in a number of ways. The British government dealt a devastating blow to pirate radio by making it illegal for British businesses to advertise on these stations (Strauss, 1984, pp. 141-145).

The most well-known proto-seasteading effort is the Principality of Sealand, which has managed to acquire a certain degree of international recognition as a country. Founded on an abandoned sea fort off the coast of England, Sealand has been home

to a pirate radio station and the data haven business HavenCo (Grimmelmann, 2012; Strauss, 1984, pp. 132-138).

Early this century, the Dutch non-profit group Women on Waves set out to provide safe and legal abortion outside territorial waters in countries where abortion is illegal.' The group developed a mobile gynaecological unit which can be easily loaded on a ship which can then sail to wherever it is needed (Gomperts, 2002).[93] There have been a number of other proposals to use ships anchored just outside territorial water to provide services which are illegal or heavily-regulated on land, ranging from brothels to floating euthanasia clinics.

Perhaps the greatest proto-seasteaders, though, are the 'sea nomads' of Southeast Asia (Chou, 2003; Sather, 1995, 1997, 2002; Sopher, 1977; Tagliacozzo, 2009). There have been a variety of peoples around Thailand, Burma, Malaysia, the Philippines, and Indonesia who have lived a nomadic life hunting and gathering in and around the ocean. The most nomadic lived entirely on their boats and came ashore only to trade, repair their boats, and gather from seaside jungles what the ocean could not provide. While the numbers have dwindled due to resource pressures, economic opportunities on land, and government intervention which made their way of life less feasible, a number of sea nomads remain.

The social organisation of the sea nomads is of particular interest, since mobility seems to have led to a number of political advantages. While there was and remains some diversity, all sea nomads historically had a great deal of autonomy and organised their social life in roughly comparable ways. Sather (1997, 2002) describes the social, economic, and political life of the Bajau Laut. Until the 1950s, they lived entirely on their boats, each of which normally contained a single family of around five people. These families would form moorage communities of between five and fifty families. Within these communities, closely related families - most commonly married siblings - would form tighter units of cooperation - *pagmunda'* - sharing a single mooring post and often fishing together. The organisation of these communities was very egalitarian, with no formal authority providing governance. As in many customary systems of law (Benson, 1990), there were influential elders who would help settle disputes and deal with authorities on land, but they held their positions only by maintaining the respect of everyone else.

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[93] http://www.womenonwaves.org

Being nomadic boat people, the cost of exit from these communities was low. As such, a *pagmunda'* would sometimes break off to form its own moorage community or join a neighbouring one. Moorage communities were thus subject to jurisdictional competition. These communities also took advantage of regulatory competition among land-based feudal lords. Bajau Laut moorage communities were vulnerable to outside attack when moored, particularly by slave raiders. This prompted them to enter into a type of feudal relationship with land-based political powers. A moorage community would ally with a coastal lord offering protection in exchange for a preferential trading relationship. This led to an interesting form of jurisdictional arbitrage. The Bajau Laut were mobile: there was little tying them to a particular mooring site. All they needed was a safe place to anchor during monsoon season and to collect fresh water and firewood, and someone with whom to trade. Since there was certain to be another lord a little further up the coast willing to provide that, lords were forced to compete to provide protection for Bajau Laut communities. This ensured decent protection, reasonable trading terms, and no undue interference in community matters despite the fact that the Bajau Laut were a highly stigmatised group (Sather, 2002, pp. 28-30)

8.3.2. Challenges and strategy

When viewed as an industry, governance is the largest in the world, representing approximately 30% of global GDP, or USD 18T/year. Thus the potential gains to entrepreneurs creating start-up countries that may outcompete existing governments are enormous. While the challenges are significant, they are not insurmountable, and there is clearly incentive to attempt to solve them. The main organisation doing this presently is The Seasteading Institute,[94] which is focused on three main areas of research: engineering, business, and legal.

Many of the engineering challenges have been fully or partially solved by the cruise ship and offshore oil industries (Lamas, Carral, & Friedman, 2010).[95] These industries have proved that, given enough economic incentive, people can live safely and comfortably at sea for long periods of time. The engineering challenge facing seasteading is to reduce the costs to enable a wider variety of economic activity, most likely by removing features of ships and platforms unneeded by seasteaders, such as the high speed of cruise ships and the individualised design of oil platforms (Hoogendoorn, 2011).

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[94] http://seasteading.org

[95] For a number of papers on the engineering challenges of seasteads, see http://www.seasteading.org/research/engineering

To beneficially live on the ocean, seasteaders need to be able to produce enough to pay for the overhead of marine real estate.[96] Past floating city projects have neglected the business case, assuming that escaping government is a sufficient reason to head to the ocean (Strauss, 1984). This is naïve, as investors want to see concrete business plans. While seasteading can someday be, like current governments, a real estate business offering jurisdictional space to a wide variety of economic activity, it is difficult to become a general platform without first having a specific application. The move from application to platform only happens once there are enough applications to create economies of scale in serving them. Thus successful seasteading will require sound business plans which leverage the comparative advantages of the ocean. Certain businesses such as aquaculture can only be done at sea, while other industries are so heavily regulated on land that it will be worthwhile putting up with the inconveniences of the ocean to provide them – just as gambling ships and pirate radio operators did. One such business is The Blueseed Project,[97] which plans to create a floating entrepreneurship centre 24 miles from Silicon Valley, thus providing immigrants with access via ferry without the need for a residential visa. Medical tourism is another promising business model for seasteads, since it is a rapidly growing, multibillion dollar industry (Reisman, 2010). Those in first world countries such as the United States already spend enormous time and money flying long distances to places such as India for medical procedures. Medical seasteads could present a much cheaper and easier alternative. Beginning with low-cost procedures enabled by cheap labour, and progressing to promising new treatments still working their way through the labyrinthine FDA approval process could be a very lucrative enterprise.

Perhaps the most serious challenges lie in the third area of research: international law and politics. If the governments of the world decide they do not like competition, seasteads will have little chance of survival (Balloun, 2010). The actions taken against gambling ships and pirate radio stations demonstrate that this is a real danger. This makes it paramount that seasteads respect both *de jure* and *de facto* international and local national law, and desist from engaging in business practices which enrage coastal states (Mutabdzija & Borders, 2011). The slightest suggestion that a seastead is being used to export drugs or enable the financing of terrorism will threaten its existence. This rules out certain otherwise viable business plans, such as anonymous digital banking, as it inherently enables money

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[96] Marty and Borders (2011) provide an overview of the context, opportunity, and challenge of seasteading business. See generally http://www.seasteading.org/research/business
[97] http://www.blueseed.co

laundering. Fortunately, since almost every business benefits from more effective governance, seastead entrepreneurs can aggressively filter for those business models for which there is no proven history of intervention.

The strategy of The Seasteading Institute is to focus on research in these three areas to reduce uncertainty and lower expected seastead costs, as well as building a community of interested seasteaders and entrepreneurs. Together, these will create an environment that will give rise to the first seastead ventures, and the majority of Institute resources are focused on removing the barriers to these first attempts, with a minority devoted to long term work such as research on large floating structures and sovereignty.

8.4.   Conclusion

A world of truly competitive governance – in which barriers to entry and switching costs are both low – would be an enormous boon to human wellbeing. Not only would competition constrain the power of government – thus fulfilling the promise of constitutionalism – it would also induce innovation and foster diversity in rules.

Rules are a social technology in the sense that they allow us to cooperate to achieve our goals (R. R Nelson & Sampat, 2001). Like any technology, rules can be improved. We cannot predict precisely how the technology of governance will evolve given decentralised experimentation guided by individual choice – just as Alexander Graham Bell could not have foreseen the modern smartphone - but we can be confident that it will improve. Rules are a particularly crucial technology because they form the environment in which other technologies develop, and thus have a strong influence on the speed and variety of all other forms of innovation (Baumol, 2002). We tend to overlook the enormous potential of ongoing technological change, but the progress we have seen since the industrial revolution may be only the beginning. Human ingenuity will continue to make our lives better, and will do so more rapidly with better rules. All the greatest problems of the world – poverty, disease, and existential risks like global warming – are deeply and directly affected by the quality of our rules. Poverty happens where rule sets are bad; medical progress has been enormously slowed by regulation like the 1962 Kefauver-Harris amendments in the US (Klein & Tabarrok, 2002; Peltzman, 1973, 1974); and the mitigation of existential risks are global public goods, thus underprovided given the lack of good international coordination mechanisms (Kaul, Grunberg, & Stern, 1999).

Seasteading offers the potential to dramatically lower both barriers of entry and switching costs in the governance industry, influencing the rate of innovation at a deep level, and producing more, better, and cheaper rules. In essence, a little technological innovation could unlock an unprecedented level of political innovation, giving rise to a Cambrian Explosion in government. Seasteading is a means of producing political change and it is consistent with other proposals such as functional, overlapping, competing jurisdictions (Frey & Eichenberger, 1999), for-profit governments (MacCallum, 1970), and deep local democracy (Kotler, 1969). The beauty of working on the technological capabilities of actors rather than institutions themselves is that institutions become endogenous to the preferences of individuals. Experimentation will tell us whether unbundling government services is desirable and whether decisions should be made by proprietors or deliberating citizens.

While the challenges in making seasteading a reality are not trivial, we have argued that seasteading, unlike most activism, improves the true determinants of governance quality while avoiding the vicious circularity of using deeply flawed and unresponsive political systems. Thus the expected value of this unusual form of activism is far higher than the dominant approach of proposing and advocating for specific policies or even constitutional rules. By extending traditional public choice models to consider industry structure and the non-institutional determinants thereof, we believe we have found a lever – the frontier – and a fulcrum – the ocean – from which we can move the world.

9. Conclusion

9.1.   Introduction

Each chapter of this thesis has relaxed one or more of the assumptions of mainstream public choice theory. I have endogenised epistemic rationality (chapters 1-2), assumed other-regarding (chapter 5) and expressive (chapter 4) preferences, modelled dispositional choice (chapters 4, 6), considered the out-of-equilibrium dynamics of political institutions (chapters 6-8), used feasibility analysis to constrain normative theory (chapters 5-6), and discussed the demandingness of feasibility constraints (chapters 7-8). Though I have covered a great deal of ground, I wish to argue in this concluding chapter that these papers share a common methodological approach to rational choice analysis and a common positive and normative interest in the comparison of exit and voice.

This chapter begins by arguing that revisionist elements have always been present in rational choice theory. It then outlines each chapter, paying special attention to the broad implications of the arguments made and how the relate to one another. Finally, the chapter draws on this discussion to point to important areas of future research for the revisionist public choice analysis of exit and voice.

9.2.   A revisionist history of public choice theory

I have suggested repeatedly in this thesis that rational choice political theorists have for the most part retained a common set of simplifying assumptions taken from economics and that these assumptions have revealed some interesting causal mechanisms and obscured others. As a general claim I stand by this, but it is important to recognise that there has been a revisionist strand of public choice theory since its inception, particularly in the (implicitly or explicitly) comparative study of exit and voice. Indeed, many of the founders of public choice theory are revisionist in important respects. In this section I would like to review some of this work and suggest that revisionist public choice theory as understood here is a continuation of the public choice tradition rather than a challenge to it.

There is a trace of revisionism in Downs's (1957) discussion of rational ignorance and the paradox of voter turnout.[98] While the idea of information costs was present

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[98] The exit and voice comparison is largely implicit in Downs, with the exit-enabled consumer of economic theory serving as a benchmark against which the voice-enabled voter is compared.

in economics when Downs was writing, imperfect information was not the prominent idea it became in the 1970s following the work of Akerlof (1970), Spence (1973), and Stiglitz (1975).[99] While Downs did not embrace the potential implications of rational ignorance and rational abstention, some early work building on his analysis did have more explicitly revisionist elements. The problem of rational abstention identified by Downs (1957) is that since the value of a desirable electoral outcome must be discounted by the vanishingly small probability of pivotality, the expected value of a vote will be outweighed by the costs of voting unless the benefits of a desirable outcome are assumed to be implausibly high. Formally, the expected benefit of a vote is given by:[100]

$$R = PB - C$$

Where R is the individual expected value (reward) of voting, P is the probability of pivotality, B is the individual differential benefit of a favourable electoral outcome, and C is the individual cost of voting. Rational choice theory predicts that individuals will vote if and only if $R > 0$. Since C is assumed to be positive and P is assumed to be very close to zero, R would have to be implausibly large for voting to be rational. Rational choice theory would seem to predict that voting is irrational, but large numbers of individuals do voluntarily turn out to vote. The fact that Downs and Tullock begin with rational choice assumptions and show that many people are behaving irrationally is something of a paradox for rational choice theory.

There have been a number of attempted resolutions to this paradox,[101] but one approach in particular has a revisionist flavour. Whereas Downs argued that people voted in order to instrumentally support democracy – a claim which seems implausible in light of the expected effect of a single person's vote for democratic legitimacy – others wrestling with the problem were more willing to embrace the possibility that people voted out of a sense of duty rather than an instrumental desire to bring about some state of affairs. Riker and Ordeshook (1968) seek to resolve the paradox by distinguishing between the individual costs and benefits of voting which depend on the individual's contribution to the electoral outcome and those which do not. The paradox arises because all the benefits but none of the costs of voting are contingent on the individual's influence on the electoral outcome. Riker and Ordeshook point out that there may be costs of voting which

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[99] Downs anticipates some of the work by Stigler (1961) on the economics of information.
[100] The notation here follows Riker and Ordeshook (1968).
[101] See generally Dowding (2005) and Mueller (2003, Chapter 14).

depend on electoral outcomes and benefits which do not. The contingent costs of voting are likely to be rare and trivial in the real world, but the non-contingent benefits of voting are likely to be common and significant. Riker and Ordeshook, following the notation introduced above, define D as the benefits of voting accruing to an individual regardless of their effect on the electoral outcome and rewrite the reward function of voting as:

$R = PB - C + D$

D includes, among other things, the satisfaction deriving from compliance with a perceived duty to vote, symbolic support for democratic institutions, expression of partisan values, and feelings of political efficacy. These factors do not depend on the electoral outcome and thus need not be discounted by P. This means that when B is reduced to approximately zero, the relevant tradeoff is between C and D, and it is not at all implausible that the non-contingent benefits of voting exceed the non-contingent costs for many people, making R positive. The fact that turnout is so high shows this to be the case; that turnout is well below 100% and differs across groups shows that R is sometimes negative. Riker and Ordeshook insist that people vote or not depending on the relative magnitude of the costs and benefits of voting, with the benefits of voting being predominantly non-instrumental.

The argument that non-instrumental preferences such as a sense of civic duty are a major factor in getting people to the polls has proved popular (Goldfarb & Sigelman, 2010; Grofman, 1993; Knack, 1992), but many of those accepting this argument insist that people vote instrumentally once they arrive at the voting booth (Mackie, 2011, 2012). The idea that the *content* of voter choice is non-instrumentally motivated is also present in early work by foundational figures in public choice theory.

An interesting example is Buchanan's (1954a) comparative analysis of individual choice in voting and the market. Buchanan makes two relevant claims in this paper. First, he argues that democratic choice will be based more heavily on values as opposed to interests when compared to market choices. This conclusion is an obvious precursor to the idea of expressive voting, but Buchanan's argument for this conclusion is based not on individual insignificance but on its opposite. Individuals see market equilibria as beyond their control and thus focus on individual interests when making market choices. In the voting booth, on the other hand, individuals see themselves as contributing to a collective *social* decision. Since they are deciding for the group rather than themselves, they take a social

perspective (Buchanan, 1954a, pp. 336–337). Buchanan's argument here is rather unconvincing from a rational choice perspective and is clearly at odds with his later insistence on symmetric motivational assumptions across institutional contexts. Buchanan posits no mechanism by which voters are motivated to expand their normative horizons beyond the claim that they ought to do so.

Buchanan does consider the implications of individual insignificance in the voting booth, but in relation to the epistemic rather than the motivational dimension of choice. Pointing out that individual responsibility for choices is divided among many individuals in the voting booth, Buchanan argues that 'there is neither an immediately realizable and certain benefit nor an imputable cost normally involved in the voter's choice' (Buchanan, 1954a, p. 337). The difference in responsibility of voting and market choices means that market choice generally produces 'a more precise and objective consideration of alternative costs' (Buchanan, 1954a, p. 337) and ultimately 'more rational behavior' (Buchanan, 1954a, p. 341) in comparison to voting decisions. The argument here can be interpreted as an embryonic version of Caplan's (2007) rational irrationality argument.

Despite Buchanan's argument for rational irrationality being much more compelling than his argument for sociotropic/expressive voting, the latter idea developed much earlier in the public choice literature and has thus far been far more influential. Tullock (1971) argues that individuals will expressively vote for higher levels of redistribution than they would prefer if individually decisive. Goodin and Roberts (1975) argue that the insignificance of a single vote makes the expression of ethical preferences cheap and thus promotes impartiality. Fiorina (1976) builds on Riker and Ordeshook's formulation of the voting decision by considering expressive benefits which vary across voting choices due to party allegiance, though this paper continues to focus on turnout rather than the choice between candidates. Brennan and Buchanan (1984) construct a simple general model of expressive voting, pointing to the normative complications arising from the separation between choice and preference. Brennan and Lomasky (1983, 1984, 1985, 1989) extended the argument in various directions before publishing a book-length formulation of the model (G. Brennan & Lomasky, 1993) which would serve as the foundation for more recent theoretical and empirical work (Hamlin & Jennings, 2011). While there was clearly a significant uptick in the expressive voting literature in the 1980s and 1990s led by Brennan and co-authors, the brief review above suggests that this work is a refinement of earlier ideas in public

choice theory rather than a radical departure from a methodologically homogeneous mainstream.

The possibility of epistemic irrationality as understood by Caplan (2007) has also been present in the public choice literature, though in a more subtle form. As suggested above, the idea was present in Buchanan (1954a), and it is quite explicit in Joseph Schumpeter's 1942 book *Capitalism, Socialism, and Democracy* (Schumpeter, 2003). While Downs (1957) is generally regarded as the founding work in the economic approach to politics, I would like to make the case that Schumpeter has an equally valid claim to this title. Downs no doubt provided the classic formal treatment of democratic choice and competition and in this sense was a founding work in the methodology of public choice theory, but, I will argue, Schumpeter provided an imprecise but more general framework for political analysis. Downs was influenced by Schumpeter's argument, but in creating a precise and rigorous formal model of democracy he was forced to make a number of simplifying assumptions of which Schumpeter would have disapproved (Mitchell, 1984; Wohlgemuth, 2005). Conventional public choice theory has followed Downs in terms of his commitment to positivist modelling and formal rigour, but at the same time its substantive concerns and assumptions have been moving in a more Schumpeterian direction. Revisionist public choice theory is a more serious and explicit move in this direction, though the connection to Schumpeter is not normally direct or explicit.

If we define public choice theory in broad terms as 'the application of economics to political science' (Mueller, 2003, p. 1), Schumpeter clearly qualifies as a public choice theorist – he was an economist and used economic concepts such as competition and entrepreneurship to analyse democratic processes. If we read Mueller's (2003, pp. 1–2) extended definition of public choice theory as postulating that political man is 'an egotistic, rational, utility maximizer,' Schumpeter is clearly excluded. Schumpeter was in general hostile to the methods of neoclassical economics and being suspicious of excessive abstraction he rejected the behavioural postulates of the emerging economic mainstream and instead combined informal economic reasoning with historical, sociological, and psychological analysis (Schumpeter, 1934; Wohlgemuth, 2005).

Most important to the purpose at hand is Schumpeter's discussion of human nature in politics, which uses informal economic reasoning backed by appeals to intuition

and anecdotal evidence to argue that people are severely and fundamentally irrational in the voting booth:

> Thus the typical citizen drops down to a lower level of mental performance as soon as he enters the political field. He argues and analyzes in a way which he would readily recognize as infantile within the sphere of his real interests. He becomes a primitive again. His thinking becomes associative and affective (Schumpeter, 2003, p. 262).

This frequently-quoted passage has been accused of violating the principle of behavioural symmetry generally thought central to public choice theory (Mitchell, 1984, p. 76), but the argument provided for *behavioural* asymmetry is an informal approximation of Caplan's theory of rational irrationality which can be justified without assuming *motivational* asymmetry. Schumpeter argues that in their ordinary lives individuals are 'subject to the salutary and rationalizing influence of favorable and unfavorable experience' (Schumpeter, 2003, p. 258). People tend to think carefully and dispassionately about things which directly concern them, and Schumpeter suggests that the objects of democratic choice generally fail to impose the epistemic discipline required for reasoned choice (Schumpeter, 2003, pp. 256–264).

It is easy to see the kernel of rational irrationality in Schumpeter's argument and it is tempting to see Caplan's model as a reinterpretation and formalisation of Schumpeter using the tools of modern economic theory. This interpretation is fine as far as it goes, but it leaves out an important part of the story. Schumpeter did point to the incentive differences between individual and collective choice, but he also considered the prospects for learning as influenced by the institutional environment. It is not simply that democratic choice is individually costless but that democracy does not allow for the trial-and-error feedback crucial to rationality. Irrationalities are cleared by prolonged experimentation, and this is generally not an option in democratic politics (Schumpeter, 2003, p. 258).[102]

Moreover, there is a great deal of conceptual distance between the practical concerns of everyday life and the concerns of democratic politics. People are accustomed to thinking carefully and rationally about the management of their

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[102] See Wohlgemuth (2008) for a recent argument to this effect.

household and the conduct of their profession, and if asked to answer hypothetical questions on such issues they would likely be fairly rational despite a lack of incentives. In those fields 'distinguished by a sense of reality or familiarity or responsibility' (Schumpeter, 2003, p. 259) decisions are generally made soundly. Most political decisions, however, fall outside of this realm for most people are will thus be made on flimsier epistemic foundations. Not all collective decisions are like this, however. Especially at a local level, the concerns collective action will be closely related to the everyday experience of voters: 'The manufacturer, grocer or workman need not step out of his world to have a rationally defensible view (that may of course be right or wrong) on street cleaning or town halls' (Schumpeter, 2003, p. 260).

Schumpeter argues that incentives, feedback, and domain-specific experience promote rationality, and that each factor implies that individual exit decisions will be more rational than collective voice decisions, at least in large electorates.[103] Schumpeter offers no formal model and is vague on the relative contribution of each factor and the potential interactions between them. Caplan picks up the incentive side of the story and creates a model. As I suggested in chapter two, Caplan's focus on incentives provides space for a more complex model considering the relative effect and interaction of incentives and feedback.

Although the *explicit* consideration of epistemic rationality is for the most part absent from rational choice political theory between 1942 and 2000, there is a great deal of work in public choice theory which suggests that rational irrationality, like expressive voting, is a progression of the tradition rather than a radical break from it.[104] Eichenberger and Serna (1996, p. 141) point out that many rational choice analyses implicitly rely on a form of irrationality which would be impossible on the neoclassical model of information economics (Stigler, 1961). Whenever political failure is grounded in non-random errors of which voters should be aware, simple

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[103] Schumpeter's argument is more complicated than this. It is not simply that political preferences systematically deviate from underlying desires but that coherent political preferences are never formed. In the practically irrelevant world of politics people have 'wishes and daydreams and grumbles' but not set of preferences capable of grounding rational action (Schumpeter, 2003, p. 261). Schumpeter is again vague here, but he seems to be suggesting that non-basic preferences (Hausman, 2012, p. 36) are constructed by the act of choice, with their coherence and congruity with basic preferences depending on the level of conscious deliberation. This idea would obviously be difficult to model in rational choice terms. There is some evidence from behavioural economics that preferences are in some sense constructed by choice rather than being a prior determinant of it (Lichtenstein & Slovic, 2006).

[104] Notable exceptions to the neglect of explicit consideration include Akerlof (1989) and Brady et al (1995).

rational ignorance does not work as an explanation. Thus, models of fiscal illusion (Buchanan & Wagner, 1977) and rent seeking (Olson, 1982; Tullock, 1989) which require that voters be systematically deceived are based in some sense on rational irrationality rather than rational ignorance. Wittman (1989, 1995) seizes on this point in arguing that public choice arguments for democratic failure implicitly assume irrationality, treating such assumptions as illegitimate on rational choice grounds and concluding that democratic outcomes are efficient after all.

Non-equilibrium dynamics are also present in Schumpeter's work, though his historical-evolutionary account of politics is much less developed than his theory of economic dynamics (Schumpeter, 1934). The ideas of non-equilibrium dynamics and creative political entrepreneurship, however, are also implicit in much foundational work in public choice theory. Most obviously, the possibility of intransitivity in majority choices raises the possibility of democratic disequilibrium (Arrow, 1951; Black, 1958), and this opens the possibility that political entrepreneurs can determine outcomes by manipulating the agenda (Riker, 1982, 1986), logrolling (Tullock, 1981), or changing the rules of the game (Shepsle & Weingast, 1981). For Buchanan in particular, the instability which so troubled Black (1958), Arrow (1951), and Riker (1982) was a desirable property of democratic competition. The proper response to irresolvable disagreement is to not find some aggregation mechanism which consistently produces a definite but arbitrary answer; rather, it is to compromise. Instability is one form of compromise, since it divides power temporally (Buchanan, 1954b, p. 119).

Moreover, instability provides scope for new alternatives to be proposed which make everybody better off and remove instability. The political entrepreneur able to devise mutually beneficial bargains is a central element in Buchanan and Tullock's (1962) approach to constitutional economics. Through logrolling and side-payments, potential gains from trade can be realised and compromises can be made. In Buchanan's later constitutional political economy the role of the entrepreneur is expanded to include the restructuring of the rules of the game in order to reach previously unattainable equilibria (G. Brennan & Buchanan, 2000; Buchanan, 1975b, 1987). Others in the public choice tradition have considered political entrepreneurship as a factor capable of promoting efficiency through the identification of mutually-beneficial political trades or as undermining it through rent-seeking (Holcombe, 2002; Niskanen, 1998; Sutter, 2002; Wagner, 1966, 1977).

Insofar as political entrepreneurs rely on disequilibrium for profit opportunities but on realising such opportunities push the political market towards equilibrium, they are Kirznerian entrepreneurs (Kirzner, 1973, 1997). Our understanding of Kirznerian political entrepreneurship in this sense is reasonably well-developed in many areas of politics, but the phenomenon of Schumpeterian entrepreneurship as a disequilibrating force is less well understood. The evolutionary work on Tiebout competition cited above is Schumpeterian in its focus on open-ended growth, but the analysis here is currently sparse, informal, and unconvincing. The importance of work on institutional evolution by new institutional economists such as Douglass North (2005) and Elinor Ostrom (1990, 2000) has been widely recognised, but the ideas have for the most part not been absorbed into the mainstream. Evolutionary public choice theory is not yet an active research project, but criticisms of public choice theory as being overly concerned with static concerns ignore the important role given to the entrepreneur by the most prominent members of the Virginia and Rochester schools.[105]

Public choice theory has also had a more subtle normative approach than is recognised by its critics. Buchanan's contractarian constitutional political economy had Pareto efficiency at its normative core, but it is important to recognise the ways in which Buchanan's early work broke with the conventional understanding of efficiency in economics and was grounded deeply in normative political theory. Buchanan fully embraced the argument of Robbins (1935, Chapter 6) that interpersonal comparisons of utility are impossible and insisted that preference can only be revealed by choice. Thus, he rejected the Kaldor-Hicks standard of potential Pareto efficiency as old and meaningless wine in new bottles. Unless we assume that utilities are definite quantities (which they are not) and that economists are omniscient (which they are not), the only way forward for welfare economics is to stick with the Pareto criteria strictly interpreted and do as much normative work as is possible on that basis (Buchanan, 1959, 1979).

Buchanan's official position is that political economy as an analytic tool for normative evaluation has no way of distinguishing between points on the Pareto frontier while admitting that other factors may be relevant, meaning that Pareto superiority is a sufficient but not a necessary condition for a policy change to be

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[105] The criticism is somewhat more valid of the Chicago school, but Becker (1983) and Wittman (1995) did rely on entrepreneurship to some extent. For what I consider a misguided critique of conventional public choice theory as overly static see Wohlgemuth (2005). On the Austrian elements in the Virginia and Chicago schools see Sutter (2002).

acceptable. Within the normative scope of Buchanan's analytic framework the status quo is precisely as efficient as any move supported by some but opposed by others.[106] The political economist can say that some redistributive scheme is not objectively good, but not that it is objectively not good (Buchanan & Tullock, 1962, p. 92). Buchanan's broader normative goals, however, are far more substantive and less focused on efficiency. He remains committed to the idea that collective choices should impartially consider the interests of individuals as exemplified by the Pareto principle, but his insistence that the status quo must serve as the starting point in both an analytic and normative sense reflects a partiality to existing institutions justified on non-efficiency grounds. Buchanan sees mutually beneficial exchange as the entire point of collective action, and since we start from the here and now only unanimously preferred policy changes are permissible. Thus Buchanan the normative theorist treats unanimous consent, subject to some accommodation for unreasonable men and decision making costs, as a sufficient *and necessary* condition for legitimate collective action (Buchanan, 1959, 2004; Vanberg, 2004).[107]

If we extend our focus to social choice theory, the work of Sen (1970, 1976, 1979b, 1980, 1987) has been influential in introducing non-welfarist evaluative standards into rational choice analysis, while Harsanyi (1953, 1955, 1980, 1985) has sought to justify efficiency as a practical tool on a broader liberal conception of neutrality. Further, there is much work at the intersection of philosophy, political theory, and economics which uses rational choice theory for a variety of normative purposes (Barry, 1965; Broome, 1991; Gauthier, 1986; Kavka, 1975; Kolm, 1996; Rawls, 1971; Sugden, 1986).

Based on the summaries of public choice theory written by both defenders (Buchanan, 1984; Mueller, 2003; Tullock, Seldon, & Brady, 2002) and critics (Green & Shapiro, 1994; Self, 1993; Wohlgemuth, 2005), one could be forgiven for thinking that the public choice theory which emerged in the latter half of the twentieth century had strictly followed neoclassical economics in terms of its assumptions, methods, and approach to normative evaluation.[108] If we accept that

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[106] It is important to keep in mind Buchanan's emphasis on the idea that such disagreements can be resolved by logrolling or agreement on more general rules.

[107] Dowding and Hindmoor (1997) criticise this stronger formulation of the Pareto requirement for being excessively conservative and favouring without justification the existing distribution of wealth, property, and rights.

[108] The impression that public choice theory is fundamentally ideological in its support for the market and ambivalence towards democracy is also very clear in these critiques. While there is no doubt that the Virginia school is generally disposed towards markets, public

proposition the revisionist approaches discussed in this thesis appear to be highly deviant versions of public choice theory or entirely new and distinct approaches. As I have tried to show in this section, this view is mistaken. The work of Brennan and Lomasky (1984, 1985, 1993), Brennan and Hamlin (1995, 1998, 1999, 2000, 2002), and Caplan (2000, 2001a, 2001c, 2002, 2003, 2007) are major contributions to political theory, but rather than fundamentally overturning an established orthodoxy this work should be seen as a continuation of the public choice tradition emerging from the work of Schumpeter, Downs, Buchanan, Tullock, Olson, and Riker.

9.3.   The thesis

The papers making up this thesis have considered various aspects of the relationship between exit and voice as individual responses to dissatisfaction and institutional mechanisms of control and communication. Each paper has also, like the works cited above, relaxed the conventional assumptions of rational choice theory in one way or another. In this section I reiterate what I take to be the main implications of each paper for the exit and voice debate and for revisionist public choice theory, focusing on the elements which connect the separate papers.

9.3.1.   Chapter two: Rational irrationality as dual process theory

This chapter is first and foremost a clarification and defence of Bryan Caplan's rational irrationality model of voter choice. Caplan (2007) formulates a simple model based on simple mainstream price theory but with the introduction of preferences over beliefs as well as outcomes. This model generates the conclusion that people will be less epistemically rational in the voting booth than the market place, with Caplan's interpretation of the model tending towards the conclusion that voters will be very irrational indeed and that this irrationality produces serious political failures.

Caplan's price theoretic analysis is clearly valid in a comparative static sense. If we accept the premises that people have preferences over both beliefs and outcomes and some control over their beliefs, the conclusion that collective choices will be less focused on outcomes than otherwise identical individual choices can be straightforwardly demonstrated within the standard supply and demand framework.

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choice theory can and does ground a variety of normative conclusions (Dowding & Hindmoor, 1997).

In addition to the strength and generality of the rational irrationality effect, the open question is whether the ideas of preferences over beliefs and rational access to beliefs adequately capture genuine causal relationships between incentives and behaviour. It is this revisionist element of Caplan's framework I clarify and defend in this paper.

I respond to Bennett and Friedman's (2008) claim that the idea of preferences over beliefs is incoherent by disputing their claim that Caplan implicitly assumes that voters knowingly hold false beliefs. I recast Caplan as a default-interventionist dual process theorist claiming that affect provides an automatic answer to some questions which will be overridden by rationality only when the instrumental importance of the judgement exceeds the expected emotional costs of impartial deliberation.

Perhaps the most important contribution of this paper is to the literature on political knowledge and democratic competence, and particularly to the comparative branch of this literature which compares individual and collective choice, often explicitly in the guise of exit and voice (Barber, 1993; Mackie, 2003; Self, 1993; Somin, 2013). Against Bennett and Friedman (2008), I argue that economic theory is important to the study of political ignorance and irrationality. My paper does not claim to be a general argument for rational irrationality, but it does defend the plausibility of the argument in light of existing theory and evidence from psychology.

The paper also points to the shortcomings of Caplan's approach, in particular his focus on incentives for rationality and neglect of the cognitive costs of rationality and the institutional factors which influence these costs. The means by which voters can become rational have been studied by political scientists, most notably Lupia and McCubbins (1998), but the focus here has been ignorance rather than irrationality. I suggest that there is much promise in a public choice account of political rationality which considers both the costs. Moreover, such as an account need not be focused on preferences over beliefs understood in affective terms. There is good reason to think that affect does often bias judgement, but there are many other sources of bias unrelated to affect or desire. We do not misjudge probabilities because we want to, but because our cognitive machinery has been constructed in a way which does not handle probabilities well. We can overcome our biased intuitive judgements in this area, but it seems more reasonable to think

in terms of the costs of overcoming intuitive judgement rather than trading off the benefits of having false beliefs against the benefits of having true ones.

Moreover, taking a broader view of rational irrationality helps distinguish this approach from expressive voting in terms of scope and empirical predictions. Caplan claims that voters will hold beliefs they find pleasing and make political choices on this basis. Brennan and Lomasky claim that voters will make choices which they find expressively valuable. In both cases we can expect voters to prioritise affect over practicality, meaning that the theories tend to make the same predictions and are relevant if and only if there are expressive or affective values at stake. Taking the default-interventionist view, rational irrationality theory potentially applies to a wider range of cases and makes additional predictions based on the complexity of questions and the feedback provided by the institutional environment.

By emphasising the necessity of considering feedback, I take this paper as being a first step in developing a Schumpeterian rational choice account of epistemic rationality in politics, stressing the comparative analysis of exit and voice decisions.

9.3.2.   Chapter three: Exit and the epistemic quality of voice

This chapter applies the approach defended in the chapter two by considering the interaction of epistemically rational exit decisions and epistemically irrational voice decisions. If the behavioural difference between exit and voice decisions is that exit decisions are more likely to prompt the rational updating of beliefs, we should think of exit decisions not as being made more rationally but as prompting the decision maker to become more epistemically competent in the relevant domain. Insofar as the relevant domain requires both exit and voice decisions, we should expect the epistemic discipline imposed by exit to improve the epistemic quality of all decisions.

At one level this paper is an application of the rational ignorance and rational irrationality arguments to the interaction of exit and voice. At another level, it raises a more foundational possibility regarding the dynamics of democratic competence. Schumpeter's argument that workmen will have defensible views on local public policy on roads is relevant here, and my argument can be seen as reflecting the broader point that political decisions made in one's area of practical

concern and responsibility are likely to be made on a sounder epistemic basis than the logic of rational ignorance or rational irrationality would suggest.

This can be seen as a form of political learning from feedback, but here the source of feedback is non-political decision making. In dual process terms, this learning might work to train system 1 and thus make intuitive judgements more reliable or provide system 2 with more accurate beliefs and more efficient cognitive tools for solving complex problems with little effort. I frame my argument in terms of the latter possibility in the paper, since the basic point can be made in this way without complicating the analysis with dual process theory.

This and the previous paper also clarify the distinction between the rational irrationality and expressive voting accounts of political behaviour, both conceptually and empirically. While these approaches are sometimes considered as different statements of the same basic point, shifting the focus from preferences over beliefs to the costs of overcoming cognitive bias, chapter two makes the conceptual distinction clear. When we narrow the conception of rational irrationality to affective biases, the differences between the theories are obscured by large grey areas and convergent empirical predictions. If we think that the natives of a country would be better off with high levels of immigration but vote against pro-immigration reforms out of a broad sense of dislike for immigrants, it is unclear whether we should describe this situation as one of irrational voters failing to update their beliefs regarding the effects of immigration or of expressive voters booing immigrants as a group. Similarly, it is not clear whether voters favour more redistribution than they would choose if personally decisive because they underestimate the costs of such redistribution or simply because they are expressing generosity without the constraint of self-interested rational calculation. When we consider non-affective cognitive biases, it becomes clear that my generalised version of rational irrationality theory is quite distinct from expressive voting theory.

Chapter three provides a potential case demonstrating the empirical divergence between the theories. In the standard model of expressive behaviour, choices made in one sphere need not have an impact on similar choices made in a different sphere. Even as exit options prompt people to make instrumentally rational choices among various policies, voting decisions over those same policies could continue to be decided by expressive preferences. The basic expressive model of choice holds the expressive and instrumental arguments in an individual's utility function

to be distinct and independent, with the characteristics of the choice situation determining the relative importance of each. That an individual makes a choice consistent with their instrumental preferences in one context does not influence their expressive preferences and will therefore not alter choices which are made primarily on expressive grounds. Thus, individuals will often vote with their feet for one set of policies and vote with their ballots for a different set.

The claim that the instrumental and expressive components of an individual's preference function are independent may be questioned, however, and the expressive account of voting may be modified to allow for this. Psychological research into cognitive dissonance has shown that people prefer that their behaviour and attitudes are consistent with each other (J. Cooper, 2007; Festinger, 1957). According to cognitive dissonance theory, whenever an individual's behaviour, beliefs, or attitudes are visibly inconsistent, they will become uncomfortable and seek to reduce the dissonance in some way.[109]

To bring cognitive dissonance into the expressive model of choice, we need to add an expressive preference for consistency between choices across spheres. If an individual makes a choice in one sphere, they will have a preference that choices in other spheres be consistent. Individuals remain motivated by a combination of instrumental and expressive preferences, but these previously distinct aspects of an individual's preference function are no longer independent. If an instrumentally-dominated locational decision prompts an individual to prefer policy X to Y, a voting decision of Y over X will produce cognitive dissonance. This dissonance could potentially be reduced by changing the locational decision to match the expressive preference, but the logic of expressive choice tells us that this is unlikely. Since the individual is decisive over locational choices, instrumental preferences will play a greater role than for voting decisions. In their voting choice, the individual will now be motivated by their pre-existing expressive preference for policy Y but also their expressive preference for consistency, and hence for policy X.

Exit options will therefore tend to align individual and collective choice under the expressive model of choice if we incorporate a desire for consistency in individuals' preference functions. Of course, the range of voting decisions for which this effect is relevant may be small. The policy options considered in voting

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[109] Akerlof and Dickens (1982) consider cognitive dissonance from a rational choice perspective.

and locational choices are seldom identical, and rationalisation may be capable of resolving dissonance without altering behaviour.

9.3.3. Chapter four: Strategic and expressive voting

In this paper I argue against the claim that strategic voting is inconsistent with entirely expressive motivation. To do this, I provide a dispositional account of politics as serious business, suggesting that individuals feel compelled to make instrumentally defensible political choices given their ideological preferences, with those preferences (as dispositions) being chosen on entirely expressive grounds. Like chapter two, this chapter is ostensibly a defence of the extreme revisionist position against criticisms which I take to be based on a misunderstanding. Like chapter two, this chapter provides a modified version of the revisionist account in the process of defending it.[110]

By interpreting expressive voting in dispositional terms, we can easily see how expressive voters could be responsive to simple instrumental arguments about wasted votes while continuing to choose their basic commitments in a way which completely disregards instrumental preferences. As discussed above in relation to chapter three, it is important to consider the expressive preferences people have for behaving in a way which appears consistent, reasonable, and competent. Such preferences might look instrumental in important ways, but the important point is that they are over the actions individuals take rather than states of the world defined in terms of culmination outcomes (Sen, 1997). As Mackie (2011) argues, even if this distinction is capable of preserving the conceptual consistency of expressive theory with strategic voting, it may yet completely strip it of empirical power. If we claim that people are voting as if instrumentally for expressive reasons, the expressive preferences are not doing any empirical work. By distinguishing between ideological and electoral dispositions, I show that this need not be the case.

To consider expressive preferences for defensible or reasonable action, it is useful to bring in the concept of esteem as understood by Brennan and Pettit (2000, 2004). Brennan and Pettit see the good opinion of others as an economic good subject to

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[110] The modification is much less fundamental in this chapter than in chapter two. In chapter two I suggest that Caplan's model ought to be based on entirely different, though similar, assumptions. This chapter, on the other hand, is more extension than revision or critique. Moreover, the move I make is implicit in Brennan's (2008) concept of politics as serious business, though he does not make the argument in dispositional terms or distinguish between the ideological and electoral levels of choice.

significant demand and limited supply. People want to be considered brave, wise, caring, intelligent, or fashionable by others and are willing to give up other goods in order to increase their esteem. The desire to make esteem-worthy choice in this sense can be seen as a subset of expressive preferences in that they are satisfied by expressing oneself to others rather than altering objectively-defined culmination outcomes. My argument could be reinterpreted as claiming that individuals gain esteem when others think of them as canny political actors, and people judge canniness in the political realm primarily on how people vote given their ideological preferences rather than on the content of those preferences. If voters are motivated by esteem or other expressive factors to hold particular views and by esteem based on canniness to take strategic action in order to pursue those views, strategic and expressive voting are entirely consistent.

There is, however, a foundational conceptual issue here which I think is under-theorised in the revisionist project: The distinction between instrumental and non-instrumental preferences needs to be made with reference to a particular outcome. In a tautological sense all preferences are instrumental in that they are aimed at achieving something. A preference for esteem is not satisfied simply by taking an action perceived as esteem-worthy but by the perceptions and judgements of others. When considering esteem as the outcome, actions aimed at securing it are indeed instrumental. If we shift focus from esteem to policy as the outcome, voting behaviour aimed at securing esteem can be seen as non-instrumental, since satisfaction of the preference does not depend on policy outcomes. Thus, esteem-seeking behaviour is instrumental in one sense and non-instrumental in another. Disagreements over whether certain behaviours should be seen as expressive or instrumental could plausibly be resolved by more careful attention to the question 'instrumental of what?' In the case of strategic voting, the answer to this question might be that the observed behaviour is instrumental of esteem but not of policy outcomes.

9.3.4. Chapter five: Children's rights with endogenous fertility

The fifth chapter shifts gear from positive to normative theory and from a focus on voice to a focus on exit. Taking its starting point as debates around the appropriate liberal response to groups which deny members exit rights or parents who take advantage of a lack of exit options to subject their children to harmful cultural practices, it argues for feasibility analysis in the form of explicit consideration of

predictable but unobservable second-order effects of centralised intervention in the name of children's rights. Analytically, the paper considers the actions of an illiberal parent prevented by law from engaging in some cultural practice which is by assumption harmful to the child, but not so harmful that their life would no longer be worth living. From a rational choice perspective, we can expect such laws to reduce the number of children demanded by illiberal parents. If we think lives subjectively worth living are objectively valuable, there is an axiological tradeoff between more and better lives when it comes to the introduction of children's rights law. To consider this tradeoff the paper adopts a modified version of hypothetical contractarianism which populates the original position with possible rather than simply actual persons.

This paper attempts to subject a large literature in normative political theory to feasibility analysis using rational choice theory, without attempting to reduce the question to one of efficiency. The existing debate is framed as being about protecting the welfare of children, with the preferences of parents being set aside. I retain the normative assumption that only children matter, though my consequentialist approach does by necessity shift the focus of the question away from the legitimacy of action to the desirability of the expected outcomes of action. As such, this is an attempt to introduce the methods of rational choice theory into normative debates outside this approach while being as careful as possible not to substitute the issue at stake in those debates for the more analytically tractable one of how to promote efficiency.

The positive assumptions made about parents are also interesting from a revisionist perspective. Many rational choice theorists, and particularly those trained in economics, seem willing to admit that moral preferences will be expressed verbally but that willingness to pay for the satisfaction of these preferences will be approximately zero. If this is the case, the negative effect of legislation on fertility will be negligible and my argument is rendered practically irrelevant. The revisionist position of meddlesome preferences is that they obey the basic laws of price theory – when their expression becomes more costly in terms of other values their expression will be reduced. The expressive theory of voting requires only that expressive preferences are marginally greater than zero; my argument here is that meddlesome preferences a significant enough that some people are willing to break the law and risk punishment in order to satisfy them. This is a stronger assumption, though there is a great deal of evidence that people are willing to pay for the satisfaction of other-regarding preferences (D. Cooper & Kagel, forthcoming).

Even if we think the existence of meddlesome preferences sufficiently strong to produce the undesirable outcomes discussed in this paper is unlikely, there is a case for the consideration of such preferences on robustness grounds.[111] When evaluating institutional alternatives of uncertain consequence, we should consider not only the empirically most likely outcome, but also the worst-case scenario (G. Brennan & Buchanan, 1983; Leeson & Subrick, 2006; D. Levy, 2002; Pennington, 2011; B. Taylor, 2010). This may be because the negative deviations have a greater effect than positive ones (G. Brennan & Buchanan, 1983; G. Brennan & Hamlin, 2004, 2006), or because we deem a conservative disposition to political change to be appropriate for reasons other than efficiency (G. Brennan & Hamlin, 2013; Oakeshott, 1962).

9.3.5. Chapter six: Analytic radicalism

Chapter six continues to focus on the normative and deals more explicitly with the issue of robustness in relation to institutional change. Although it accepts the general argument made by Brennan and Hamlin (2004, 2006) that there are often good efficiency reasons for adopting a conservative disposition to institutional reform, the paper attempts to define the conditions under which this will not be the case. In this respect, the paper is best seen as an extension and clarification of the analytic approach to conservatism developed by Brennan and Hamlin.

Another purpose of the paper is to argue that exit options reduce the cost of experimentation and thus makes an experimental disposition towards institutions consistent with robustness.[112] If the costs of failed experiments can be avoided at moderate cost *ex post*, a radical approach to institutional change seems appropriate. This point is an important assumption of the final two chapters of the thesis and of the case for decentralisation and jurisdictional competition generally.

The existence of exit options sufficiently low to significantly alter the expected value of institutional reform and thus justify a radical disposition may be unlikely when we think in terms of large nation states. Despite significant imperfections, the political systems of developed democracies produce results so comparatively good that radical constitutional reform in order to improve outcomes is foolhardy, and

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[111] B. Taylor and Crampton (2010) make this point more explicitly with respect to meddlesome preferences in market anarchy and democracy.

[112] This aspect of the paper was originally its primary focus, but the framing changed over time in order to make the more general point about the scope of Brennan and Hamlin's analytic conservatism argument. This focus then became stronger in the published version as a response to referee comments.

this is likely to remain the case across a very wide set of assumptions about exit costs. Simply considering the existence of land as an immobile asset should make us reluctant to make any bold claims about the power of exit options to remove the risk from reform.[113]

When we consider politics at a more local level, or especially when we consider unorthodox forms of decentralisation such us 'functional overlapping competing jurisdictions' (Frey & Eichenberger, 1996, 1999) and seasteading (chapter 8), exit costs sufficiently low to normatively ground a radical disposition on efficiency grounds become a more realistic possibility. Both of these proposals decouple governance and land, reducing the costs of failure by making the assets tied up in a jurisdiction endogenous to the success of that jurisdiction in Tiebout competition. Thus, failed institutional experiments need not reduce the value of immobile assets.

Another means of institutional experimentation which avoids the conservative critique of large-scale reform is the creation of new sub-national jurisdictions on uninhabited land. Paul Romer (2010) made the case for 'charter cities' on the basis of opt-in experimentation. If such cities are built on uninhabited land, the cost of failure is limited to the initial investment. Advocates of 'free cities' or 'start-up cities' as an extension of the existing model of special economic zones have been even more insistent on the possibilities for low-cost experimentation based on starting small and making growth endogenous to success in Tiebout competition (Caceres, 2013; Strong & Himber, 2009).

9.3.6. Chapter seven: Entry barriers and Tiebout competition

This chapter (co-authored with Patri Friedman) deals more directly with the limits of exit options as a means of enabling robust experimentation in the existing system of nation states. In general, the dynamic effects of Tiebout competition are limited by institutional inertia and immobile assets. Only when we enable the birth of new jurisdictions can we expect Tiebout competition to be effective in a dynamic sense. Again, the possibility of low entry barriers in the market for governance may seem sufficiently remote to render our argument meaningless or entirely pessimistic. For the reasons provided above, I disagree. It is unlikely that the conditions required for robust and dynamic Tiebout competition will emerge in a general sense capable of constraining existing nations any time soon, but

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[113] See Caplan (2001b) and Powell (2004) on the immobility of land as a constraint on Tiebout competition.

seasteading and start-up city efforts are already underway at a small scale, and if the analysis provided in this and the previous chapter is correct, entry barriers will be an important determinant of their dynamism.

This chapter contains another revisionist element which has been absent from the discussion so far: agent heterogeneity.[114] Brennan and Hamlin (2008, p. 79) see motivational heterogeneity among humans as an important aspect of revisionist public choice theory. This chapter makes the distinct point that the competing jurisdictions are heterogeneous and that representative agent models of Tiebout competition have led to a neglect of entry as a mediating factor in competitive dynamics.

The accusation we level against representative agent models of Tiebout competition – with a homogeneous population of governments competing for residents – is similar to that levelled by new institutional economists such as Ronald Coase (1937; 1992) and Oliver Williamson (1985, 1996) against neoclassical models of markets. In ignoring the internal dynamics of firms, mainstream economics prior to the institutional revolution was blind to large portions of economic life. It would of course be absurd to claim that mainstream public choice theory in general is unwilling to consider the internal dynamics of government, and in Tiebout models the idea of policy heterogeneity has always been a central part of the analysis.

Models of Tiebout competition, however, have generally treated the behavioural capacity of competing governments as homogeneous. When there is competitive pressure, the government will rationally respond regardless of its institutional makeup. This is the same assumption made of firms in economics, and the assumption there is often defended by pointing to selective pressure for firms to behave as if they maximise profits, even though the human beings constituting the firm might have other preferences (Alchian, 1950). In governments, however, institutional structures seem less conducive to profit or revenue maximisation and historical levels of competitive pressure are a great deal lower. Thus, breaking open the black box of the Tiebout competitor in order to allow heterogeneity in motivation or capacity seems useful.

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[114] I avoided this aspect of the argument in my introduction to revisionist public choice theory in chapter one, since it is relevant only to this paper and sufficiently different from the other elements that its inclusion at such an early stage would excessively complicate the argument.

Our approach is to point to the empirically documented life-cycle dynamics of firms, with innovative capacity changing over time, and suggest that competing governments may face similar constraints. Over time, routines ossify and institutions become captured by special interests. Political stability, while extremely desirable on net, produces inflexibility and creeping inefficiency (Olson, 1982). When new jurisdictions can be formed as a response to such problems (i.e. entrepreneurial exit at the jurisdictional level is possible), the problems can be avoided without suffering the serious and bloody consequences of political instability.

9.3.7. Chapter eight: Seasteading: Competitive governments on the ocean

The eighth chapter (also co-authored with Patri Friedman) builds on the points made in chapters six and seven to argue that the most plausible way of significantly increasing robust and dynamic Tiebout competition is to develop the technology to create politically autonomous settlements on the ocean. Like the previous two, this paper is premised on dynamic competition. In addition, it addresses the demandingness of feasibility analysis head-on. In arguing that those proposing institutional reform as a means of increasing Tiebout competition are putting the cart before the horse, we are making a more general sceptical point regarding the practical value of political activism, and indeed of normative political theory.

A perfectly practical person would be concerned only with the difference they can individually expect to make. We as individuals ought to consider our contribution to collective goods, but that contribution should be defined in terms of the difference in outcomes we cause. In many cases of collective action, the contribution we can expect to make is trivial. Turning out to vote or becoming politically informed are extremely unlikely to affect policy outcomes to any significant extent, so action taken or normative analysis directed at electoral choice would seem to run afoul of feasibility requirements thus conceived for individuals with no intrinsic interest in politics. In a selfishly rational sense, they would be better off watching enjoyable but uninformative reality television than rationally updating their political beliefs. In an altruistically consequentialist sense, they might also be well-advised to direct their efforts elsewhere – perhaps by helping old ladies cross the street or engaging in whatever work pays best for similar levels of effort and donating the proceeds to charity.

If an individual is intent on changing policy outcomes, we argue in the paper, a more feasible approach might be to consider the individual actions they could take to alter the extra-political conditions shaping collective choice. We focus on technology, and particularly seafaring technology, as means of lowering the costs of entrepreneurial Tiebout exit. Historical examples of technologies which altered political and social equilibria abound – the printing press, mass transit, oral contraceptives. In most cases the political consequences are unintended, but ideologically-driven technological activism can be seen in the creation of Bitcoin and other digital currencies which lower the effective cost of exit from government currency.

The motivational dimension of revisionist public choice theory tells us that people are not perfectly practical. This might explain why people apparently violate the requirements of feasibility, but more interestingly it might alter how we ought to think about feasibility. If people are motivated by symbols and fads, individuals may be more capable of directing institutional change than the analysis of chapter eight would suggest. I will discuss this issue at some length in section 9.4.4 below.

9.4.   Open questions and ways forward for the revisionist analysis of exit and voice

Public choice theory is a young discipline, and the analysis of exit and voice from a revisionist public choice theory is younger still. The papers of this thesis have, I hope, contributed to this literature, but I am under no illusions that we are anything close to a conclusive answer on even the most basic of questions. While new questions will no doubt reveal themselves over time, I see four important revisionist areas in need of further investigation if we are to get a decent grasp of the relative advantages of exit and voice and the causal relationships between them.

9.4.1.   How do voters perceive electoral choices?

A good deal of the revisionist project relies on the insignificance of a single vote, and voters' (perhaps implicit) recognition of this insignificance. It is easy to show under reasonable assumptions in an instrumental sense that voters *ought* to treat decisions in large elections quite differently, but since we have relaxed the rationality assumptions of public choice theory we must be open to the possibility that they behave differently. There are, I think, two possible ways in which my revisionist conclusion that exit and voice are behaviourally very different might be

undermined by the introduction of new revisionist elements: the overweighting of the probability of pivotality and 'the voter's illusion.'

The evidence we have from psychology and behavioural economics makes it clear that human beings often get probability judgements badly wrong. One important finding is that people tend to overweight small probabilities and underweight moderate and large probabilities when making judgments and decisions (Kahneman & Tversky, 1979). If this is the case, then the small probabilities which revisionist public choice theory tends to see as 'negligible' (G. Brennan & Buchanan, 1984, p. 187) and round down to 'roughly zero' (Caplan, 2007, p. 94) may in fact play a significant role in democratic choice.

Although the claim that humans overweight small probabilities has received empirical confirmation from a number of experimental studies (Bleichrodt, 2001; Gonzalez & Wu, 1999; Tversky & Kahneman, 1992; Wu & Gonzalez, 1996), the subjects in these studies are given probabilities through description. Recently, a number of experimental studies have attempted to establish whether the effect continues to hold when individuals estimate probabilities based on experience rather than being given objective probabilities through descriptions. These have found that in such situations individuals tend to underweight small probabilities and overweight moderate and large ones.[115] The question for politics becomes whether voters estimate the probability of making a difference to an electoral outcome through description or experience. Obviously, perceptions of democratic efficacy are based on a combination of factors and it is difficult to make any *a priori* judgement about which dominates.

In any case, it is difficult to see voters as overestimating their probability of deciding an election to such an extent that the comparative predictions of Caplan or Brennan and Lomasky between exit and voice decisions are seriously undermined. Even if the average American overestimated the probability of pivotality by a factor of 1000, a large collective action problem would remain in that voters would see themselves as deciding outcomes with one chance in 60 thousand rather than one in 60 million (Gelman et al., 2009).

A more compelling possibility is that voters confuse diagnostic and casual contingencies in the way described by Quattrone and Tversky (1984, 1988) under the guise of 'the voter's illusion.' The idea here is that voters exhibit the common

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[115] See Hertwig and Erev (2009) for a review of these studies.

psychological quirk of knowingly taking costly actions which are correlated with but not causal of desirable outcomes. Consider the Calvinist doctrine of predetermination and the response of the faithful to this doctrine. Predetermination states that one's fate in the afterlife is divinely determined prior to birth: one is either chosen or not, and no amount of piety or sin can either damn the chosen or save the unchosen. However, the chosen will have a righteous disposition, thus tending to avoid sin. In this case, sinning is diagnostic but not causal of eternity in hell. Still, it seems that many Calvinists struggled to live a life free of sin in order to show themselves worthy and talk of salvation remained common. Here, diagnostic contingency was treated as if it were causal (Quattrone & Tversky, 1984, pp. 238–239).

Voters would make a similar mistake in voting on the basis that their preferred candidate is more likely to win if like-minded people voted for them. If a voter knows that they are typical of many other voters, their decision to vote is diagnostic but not causal of like-minded individuals voting in large numbers. If voters mistake the causal and the diagnostic and thus attempt to 'induce' others to vote by voting themselves, this provides an additional possible explanation for the paradox of turnout (Quattrone & Tversky, 1984, p. 244). This possibility has a good deal of plausibility as a solution to the paradox of turnout. When confronted with the argument for rational abstention, most people will respond with some variant of the 'if everybody thought like that bad things would happen' response. This could be interpreted as some sort of Kantian deontological claim, but anecdotally I would suggest that is often based on faulty consequentialist reasoning of the sort described here.

This could potentially also mitigate the problems of rational ignorance and irrationality and reduce the effect of expressive voting. If people reasonably perceive that high levels of political knowledge and instrumental policy evaluation in people like them are diagnostic of desirable policy outcomes, they might choose to invest in more political information and be more rational than would be the case if they distinguished causal and diagnostic contingencies more carefully.

I will not here attempt to make any general claim about strength or generality of the voter's illusion but instead flag it as a potentially important issue which deserves attention in future research. Indeed, the introduction of revisionist elements – both motivational and epistemic – points to a more general need to think about the perceptions of political actors in addition to objective reality.

Whether expressive preferences tend towards the altruistic or the parochial depends on how voters perceive electoral choice, and how they perceive the importance of a single vote is likely to depend critically on how they cognitively frame democratic choice.

Needless to say, incorporating these factors into political science is a difficult prospect, though the vast literature on framing in psychology (Tversky & Kahneman, 1981, 1986) and the inroads made recently in political science (Druckman, 2001; Slothuus & de Vreese, 2010) is encouraging. Given the difficulty of measuring framing effects in the wild, experimental studies are an attractive way of coming to grips with the general mechanisms which might be in play. To a significant extent this work needs to continue on the path forged by experimental psychologists and political scientists. Experimental methods are a powerful means of testing general hypotheses in abstract settings, but ecological validity is a general problem, meaning that the lab situation may not adequately resemble the natural situations (in this case elections) about which we are attempting to make inferences (S. Levitt & List, 2007).

The issue here is similar to the more general one of how we might measure expressive preferences, dispositions, or preferences over beliefs. The ideas of expressive voting and dispositional choice have opened interesting theoretical possibilities but have thus far had only a limited effect on empirical political research.[116] Empirical investigation of symbolic politics is well-established (Edelman, 1964; Gusfield, 1963), though this research has been qualitative and interpretive in nature and as such has not been concerned with testing the claims of revisionist theory.

Given the difficulty of collecting natural data on framing or perception and the problems of generalising from lab to voting booth, a promising avenue would seem to be field experimentation (Banerjee & Duflo, 2009; Harrison & List, 2004; S. Levitt & List, 2009). Recent work on turnout by Green, Gerber, and colleagues is a good example of field research in political science which often points to revisionist elements in motivation (Gerber, Green, & Larimer, 2008; Gerber, Green, & Shachar, 2003; Gerber, Huber, & Washington, 2010; Gerber, Karlan, & Bergan, 2006; Gerber & Green, 1999, 2000, 2000, 2001). Gerber et al (2008), for example, used a field experiment to find that voters told that their turnout would be

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[116] To be clear, I don't see this as a problem for the work of Brennan and co-authors, since the normative and conceptual implications expressive voting are the main focus. Still, the theory does potentially have a great deal of empirical content.

publicised were more likely to vote and interpret this as evidence that social pressure is an important determinant in turnout.

As I suggest in chapter four, it seems to me that voters see politics as serious business in some important respects but remain motivated by purely expressive concerns in others. Empirically determining just what seriousness requires in politics and how far it extends is an important open question. I argued in chapter four that strategic voting is consistent with what I take to be a plausible specification of expressive preferences, but showing that these are the preferences voters actually have is another matter entirely. I suggest that future research attempting to tackle the latter issue will most likely need to rely on some form of field experimentation.

9.4.2.   When do decision makers learn?

As emphasised in chapters two and three, I take the ability to learn from feedback to be an important constraint on the argument of Caplan (2007), Somin (2013), and others that individual exit decisions are more well-informed and rational than collective voice decisions. The general question of how decision makers learn from experience is the subject of a large and diverse literature in psychology. This literature is too large and diverse to survey here, but from a public choice perspective we can concern ourselves with the somewhat simpler, but nevertheless mind-bogglingly complex, question of *when* people learn from experience – i.e. the institutional determinants of convergence towards epistemic rationality. I suggested some partial answers to this question in chapters two and three, but we are a long way from a general answer to this question.

Fortunately, a reasonable amount of theoretical and empirical work relevant to this question has been conducted by psychologists, economists, and political scientists. In this section I would like to present some stylised facts, interpret these facts in light of the exit-voice debate, and point to important questions which remain unanswered.

First, we know that incentives do sometimes encourage rational reflection, cognitive effort, and better performance on a range of judgment and decision tasks (Camerer & Hogarth, 1999; Smith & Walker, 1993a; Smith, 2008, pp. 173–181). However, the relationship between incentives and rationality is not a simple one. In reviewing the literature, Camerer and Hogarth (1999, p. 8) conclude that '[t]he extreme positions, that incentives make no difference at all, or always eliminate

persistent irrationalities, are false.' In general, it seems that incentives play a greater role in tasks for which performance depends heavily on effort (Libby & Lipe, 1992), because '[i]ncentives do not operate by magic: they work by focusing attention and by prolonging deliberation' (Tversky & Kahneman, 1986, p. S274).Thus, very difficult and very easy tasks are likely to be relatively unresponsive to incentives. Some problems are simply too difficult to be solved even when motivation is high, and others are so easy that the normative response is automatic and need not be motivated (Camerer & Hogarth, 1999, p. 22).

Even for non-trivial problems incentives may be unnecessary in prompting rationality, since people are often intrinsically motivated to solve problems and make rational decisions. This effect may be overstated in laboratory experiments, since those volunteering for such experiments might be more likely than others to have an interest in problem-solving and the alternative to cognitive effort in these situations is often boredom rather than pleasant recreation or effort expended on more important tasks (Camerer & Hogarth, 1999, p. 23). Moreover, as Frey (1997) argues, extrinsic incentives may sometimes undermine performance by reducing intrinsic motivation, and there is evidence that this happens in some cases (Frey & Jegen, 2001, pp. 596–606).

Laboratory experiments may understate the effect of incentives by focusing on rationality in the short term and ignoring the possibility that individuals invest in cognitive capital in order to improve future performance in problems deemed important. An individual asked to play poker and told the stakes are high may be unable to play well due to a lack of familiarity with probability theory. Individuals who find they often play poker for high stakes may be compelled to acquire statistical competence by reading books or taking classes, and thus incentives may increase rationality in the long but not the short term (Camerer & Hogarth, 1999, pp. 8–11).

There is also evidence that feedback and experience matters. In one sense, feedback is a substitute for incentives (Smith & Walker, 1993b). For feedback to work there must be some level of motivation, though if feedback is strong a low level of intrinsic motivation may be enough to improve performance over time. In many cases it seems that incentives and feedback are complementary, with the effect of incentives being stronger when learning opportunities are present and incentives increasing performance only in later rounds of repeated experiments (J. Lee, 2007).

On my interpretation, these findings do not bode well for the rationality of voters in mass democracy as it exists today. Voters currently have weak incentives and poor feedback, and it is difficult to see how this could be changed without extremely radical reform. However, it may be that a sense of civic duty provides intrinsic motivation for rationality, with cognitive shortcuts facilitating learning and reducing task complexity to a level which enables wise electoral choice with extrinsic motivation (Lupia & McCubbins, 1998; Popkin, 1991).

The extent to which cognitively and motivationally limited voters are nevertheless able to vote reasonably is an open question, as is the extent to which democracy can provide sufficient motivation and information to enable rationality. Recent experimental work has provided some important insights (Druckman, 2001; Gerber et al., 2008, 2003, 2010; Krupnikov et al., 2006; Prior & Lupia, 2008; Prior, Sood, & Khanna, 2013; Taber & Lodge, 2006), and extending this approach in a more comparative direction is of the utmost importance.

9.4.3. How do we model endogenous institutional change?

We know that human choice at the psychological level is not in general based on optimisation and that social processes are dynamic in ways which cannot be fully captured by comparative static analysis. Chapters 6-8 of this thesis attempt in various ways to move beyond the optimising equilibrium approach of mainstream rational choice theory in favour of the dynamic approaches of Austrian (Kirzner, 1973, 1997; Lachmann, 1986; Littlechild & Owen, 1980), complexity (Arthur, 1999; Rosser, 1999), and evolutionary economists (Dopfer & Potts, 2007; Loasby, 1991; R. R. Nelson & Winter, 2002).

While there have been attempts to combine these approaches with public choice theory and a number of interesting arguments have emerged (Boettke, Coyne, & Leeson, 2007; Boettke & López, 2002; Pennington, 2011; Witt, 1992; Wohlgemuth, 2002), there is no coherent research project – based on a shared set of assumptions and methods – in dynamic public choice theory in the way there has been in mainstream public choice theory on the one hand and evolutionary, complexity, and Austrian economics on the other.[117]

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[117] It might be argued that recent work on self-governance by scholars in the Austrian tradition (many of them students of Peter Boettke) forms an coherent research project in Austrian Public Choice (Boettke, 2011; Coyne & Mathers, 2011; D'Amico, 2010; Leeson & Skarbek, 2010; Leeson, 2007, 2008, 2009, 2012; Powell & Stringham, 2009; Skarbek, 2012, 2011; Snow, 2011; Stringham, 2003). While there is indeed a great deal of related

The problems with this lack of theoretical grounding can be seen in existing dynamic analyses of Tiebout competition. Vihanto (1992) suggested from an Austrian perspective that Tiebout competition can be seen as a discovery mechanism, and Vanberg and Kerber (1994) argue that the dynamic effects of Tiebout exit should be seen as an evolutionary process. Following these early analyses, a number of scholars have reiterated the need to study Tiebout competition dynamically (Wohlgemuth, 1995; Gerken, 1995; Kerber & Heine, 2003; Kerber & Vanberg, 1995; Kerber, 2008; Saam & Kerber, 2013; Stansel, 2012; Wohlgemuth, 2008), but much of this work has simply reiterated the insights of the two early papers or applied the ideas to a particular policy area. This is not a vibrant programme of research.

A useful way of thinking about this problem is to compare Vanberg and Kerber's explicitly evolutionary approach to the general evolutionary economic framework developed by Dopfer and Potts (2007). While the political realm differs from the economic in important respects, the framework developed by Dopfer and Potts seems general enough to enable consideration of political dynamics while avoiding the confusions and ambiguities in Vanberg and Kerber's work.

A key element of the Dopfer-Potts framework is the rejection of the micro-macro framework of mainstream economics in favour of the micro-meso-macro framework. Microeconomics is concerned with the behaviour of individual agents and agencies; mesoeconomics is concerned with rules and their carrier populations; and macroeconomics is concerned with the entire economy as a complex of rules and carrier populations. At the micro level, individuals and firms originate, adopt, and retain rules. This involves purposeful action, as in neoclassical economics. Unlike neoclassical economics, however, the agent is seen as a complex of rules which are subject to change. Agents will formulate or adopt new rules which enable them to better achieve their goals (Dopfer & Potts, 2007, Chapter 3). This gives rise to the abstract but analytically central concept of the meso unit as a rule, its carrier population, and trajectory. Economic evolution happens at the meso level as rules are originated, adopted, and retained by a population of carriers. Novel ideas are introduced and the most successful become established in the economic system (Dopfer & Potts, 2007, Chapter 4). As new rules become established, the

work here, I would make two points. First, this work is primarily empirical rather than theoretical. Second, the approach taken by these scholars has not shown itself to be general enough to be applied to contexts outside of voluntary interaction in self-governing groups. There are lessons for public choice theory in general, but it is unclear that the Austrian approach these scholars are working in can be generalised.

macroeconomic status quo is disturbed and a new equilibrium emerges. At the macro level, populations become structures (Dopfer & Potts, 2007, Chapter 5). The meso, then, provides a non-aggregative link between micro and macro. It is ultimately individual behaviour which has macro consequences, but macroeconomic phenomena emerge proximately from the interaction of meso units rather than micro agents (Dopfer & Potts, 2007, p. 22). Mesoeconomics is fundamentally concerned with the process of rule change. Evolution is a phenomenon of populations rather than individuals, however, and thus happens at the meso rather than micro level.

An important distinction in this framework is between agents and agencies. Agents are individual human beings conceived as rule-makers and rule-users. Where the neoclassical notion of *Homo Economicus* sees humans as rational in the operational domain, the evolutionary model of *Homo Sapiens Economicus* also recognises that humans are imaginative in the domain. People do not simply consider their options given a static set of behavioural, cognitive, technical, and social rules, but also formulate and adopt new rules which open new operational possibilities (Dopfer & Potts, 2007, pp. 29–31). Agencies are socially constructed rule-carriers which use social rules to organise the capabilities of many individuals and give rise to emergent capabilities possessed by no single individual. Firms, for example, create or adopt rules which are held by no employee or manager. Agencies are created by agents, but their knowledge cannot be reduced to that of individual agents (Dopfer & Potts, 2007, pp. 31–33).

Evolutionary economists often see market competition for profit as the selection mechanism which drives economic evolution (R. R Nelson & Winter, 1982). As firms in competitive markets seek to maximise profit, they are forced to innovate. In the Dopfer-Potts framework, competition as a selection mechanism would involve micro units competing at both the operational and generic levels. Once a firm originates a new rule which increases profitability, other firms will tend to adopt and retain that rule. These processes at the micro level will produce meso trajectories in which rules tending to increase profitability attract larger carrier populations. While competition is a microeconomic phenomenon, its evolutionary effects operate at the mesoeconomic level.

Dopfer and Potts, however, have relatively little to say about competition. This is because competition is not the only selection mechanism which operates in markets. Even in very competitive markets, a firm's response to competitive

pressure is mediated by its organisational rules and the decisions of individual agents within it. The fitness of a rule is not defined in terms of profitability, but in terms of its tendency to attract a large population of carriers. For some purposes, the competitive market process is an acceptable proxy for fitness. Dopfer and Potts are attempting to develop a general framework for the study of economic evolution, however, and market competition is too narrow for such purposes.

Just as evolutionary economic analysis needs to be careful about what it borrows from evolutionary biology, evolutionary political analysis needs to be careful about what it borrows from evolutionary economics. Governments are not like firms and citizens are not like consumers in all relevant senses. The Dopfer-Potts framework, however, is sufficiently abstract to be applicable to non-market forms of human decision making. Just as neoclassical price theory as a framework for static economic analysis has been usefully applied to non-economic situations, the Dopfer-Potts framework for dynamic economic analysis can, I suggest, be applied outside the economic realm narrowly conceived.

At the most abstract level, the general theory of economic evolution is about the dynamics of rules intended to create value for certain agents via their effect on the operational capabilities of agents and agencies. At the micro level, agents formulate ideas and agents or agencies will possibly adopt and retain these rules, depending on their internal decision making machinery and environmental effects. At the meso level, these abstract rules have carrier populations which vary according to the selection mechanisms defined by the decisions of micro-units responding to environmental decisions. These meso trajectories collectively give rise to the macro pattern of rules. This framework does not require firms or prices and is applicable to political dynamics.

States, legislatures, government departments, and political parties are, like firms, socially constructed agencies capable of carrying various technical and social rules. Political agencies are jointly constructed and maintained by various human agents, with decision making procedures emerging from the interaction of various agents along with technical and social rules. Along with political agents (voters, candidates, bureaucrats), political agencies are the micro-units in this framework and are thus not themselves subject to evolution. Rather, the population of rules emerging from the interaction of agents and agencies is the meso-unit which is subject to evolution. The mesopolitical trajectory of a rule is the process through

which it is originated, adopted, and retained. Generic political evolution is concerned with change in such rules.

The Dopfer-Potts framework makes the problems with existing work on evolutionary Tiebout competition clear. Perhaps the most important point which needs to be made is that an evolutionary theory built entirely around Tiebout competition is infeasible. In biological evolution, genes compete for instantiation in organisms. The selection mechanism here is how well they are able to do this, and this involves a number of lower-level pressures such as the ability to harvest energy, to avoid danger, and (for sexually reproducing organisms) to attract mates. No single one of these lower-level pressures can be treated independently of the others, since there will be interdependencies among them which are relevant to the overall fitness of a gene. Thus, we cannot have a useful evolutionary biological theory which only considers danger avoidance, since this leaves out too many relevant factors. All theories are abstractions, of course, but when predictable mechanisms with strong correlations to the independent variables under consideration are left out, empirical prediction becomes problematic. To continue with the example of danger avoidance, an evolutionary theory which considered only danger avoidance would presumably predict that organisms spend all their resources avoiding danger. This would clearly be a false prediction, and only by considering the tradeoffs between safety and energy harvest, for example, can we make well-grounded empirical predictions.

Tiebout competition is, like danger avoidance in biology, a lower-level mechanism which needs to be considered alongside the other mechanisms which jointly determine the fitness of any rule. Depending on the environment, Tiebout competition may be a weak or strong force in institutional evolution, but it will never be the only relevant mechanism. Thus, any evolutionary theory of Tiebout competition will be theoretically poorly-grounded and empirically fruitless. An evolutionary theory of institutional development, however, may include Tiebout competition as a lower-level pressure. This could produce interesting empirical predictions regarding Tiebout competition in relation to other such pressures, such as desirability to interest groups, the median voter, etc.

In other words, evolutionary Tiebout models cannot treat competing governments as black boxes which seek to maximise population or tax revenue. The mesopolitical phenomenon of institutional evolution depends on the micropolitical behaviour of individual governments, and the behaviour of these socially

constructed agencies emerges from the interaction of human agents constrained by the constitutional and mechanism rules of the government in question. Models of government motivation need to be built from the ground up with an awareness of how collective decisions are actually made. Public choice theory has made a great deal of progress on this front in recent decades, but the degree of fidelity required for evolutionary analysis presents serious problems.

In biology, the fitness of an organism is externally defined by environmental conditions, and the fitness of a gene is defined by its contribution to organisms' fitness in interaction with other genes. In the political realm, the situation is more complicated. There is no meaningful way to measure micropolitical fitness; some jurisdictions may be more likely to persist and thrive than others, but jurisdictions do not replicate and this type of fitness has no place in evolutionary theory. The mesopolitical concept of rule fitness, then, is not so solidly grounded at the micropolitical level. The fitness of a rule is ultimately determined by the decisions of micropolitical actors, of course, but such fitness emerges only at the meso level based on the various mechanisms which influence micro-level choice.

This makes the motivational heterogeneity of agents and agencies a very serious difficulty with no obvious solution for formal evolutionary theory. The mesopolitical trajectory of a rule depends on the extent to which it is adopted and retained by various jurisdictions. If each jurisdiction has its own idiosyncratic constellation of decision making machinery which collectively define mesopolitical fitness, analysis at the population level becomes very difficult. Unless the analyst can somehow abstract away or integrate the motivational heterogeneity of jurisdictions into their models, the concept of mesopolitical fitness cannot be operationalised.

This is also a problem in evolutionary economics, but it is much more manageable in that context. All firms in a competitive market can reasonably be assumed to have profit as a major argument in their objective functions. While other factors also influence firm behaviour, the profit motive provides an imperfect proxy for microeconomic fitness which is good enough for many analytic and empirical purposes. In a political context, there is no single environmental constraint as universal or powerful as the profit motive. We are forced to deal with motivational heterogeneity head-on.

The model implicit in Vanberg and Kerber seems to be a representative agent one in an important respect. The population of jurisdictions competing for citizens have

heterogeneous knowledge but homogeneous motivations: jurisdictions are population maximisers. This is clearly not appropriate, and the tools of agent-based modelling and other computational methods could potentially be very helpful here in formally modelling interaction among heterogeneous agencies. There has been some computational work on related topics. Some studies have simulated Tiebout exit by individual citizens (Kollman, Miller, & Page, 1997; Nishida, Yamada, Yoshikawa, & Terano, 2011), and others have considered the search for optimal policy solutions in decentralised systems of governance (Kollman, Miller, & Page, 2000; Saam & Kerber, 2013). These studies shed light on particular aspects of the Tiebout process, but they do not come to grips with the central problem of motivational heterogeneity revealed by the micro-meso-macro framework.

Evolutionary economics in the Dopfer-Potts sense has serious parallels to revisionist public choice theory in the Brennan-Hamlin sense. The concerns and methodology are quite different of course, but at a broad level both retain as much of conventional rational choice theory as possible while relaxing some of the epistemic and motivational assumptions to investigate mechanisms and processes rendered invisible by a strict adherence to the *Homo Economicus* model of choice. Moreover, both approaches are important if we want to understand the dynamics of political systems. Evolutionary economics provides a general framework which, I suggest, is capable of structuring rational choice political analysis in a way which allows for non-equilibrium dynamics and endogenous structural change. To apply this approach to political questions, however, we need to carefully and explicitly define the motivations and capacities of agents, as well as the emergent capacities of agencies. The motivational, dispositional, expressive, and epistemic dimensions of revisionist public choice theory are clearly important here.

Exit and voice, considered as institutional means of control and communication, have important roles as selection mechanisms. If, as argued elsewhere in this thesis, exit and voice decisions are made on quite difference motivational and epistemic foundations, the selective forces operative in exit-constrained systems will be quite different than those in voice-constrained systems. As Kerber and Vanberg (1995) emphasise, there is nothing about selection in general which guarantees that evolution produces desirable outcomes, but selection based on the rational exit decisions of individuals will tend to produce institutions which satisfy individual preferences. If the connection between voice and preference is weaker, this cannot so readily be concluded and evolution towards welfare-enhancing

institutions (i.e. institutional innovation) is less likely through voice than exit. Moreover, the origination of rules at the micro level is limited by entrepreneurial exit options. Given that the current system of nation states makes it difficult to opt out of existing governments and experiment with new institutional arrangements, the variation on which evolutionary selection is able to work is limited. Chapters seven and eight make this point at some length and argue for seasteading as a solution, but I take the viability of this approach as an open question which will ultimately be settled by the market rather than the academic research.

9.4.4. Is reform ever feasible?

The idea that we should subject normative theory to feasibility analysis is a central element of revisionist public choice theory (G. Brennan & Hamlin, 2009), and indeed of normative public choice theory in general. Buchanan's (1984) description of public choice theory as 'politics without romance' gets at the heart of the feasibility issue. There are many social outcomes we might think desirable in various ways, but we need to be realistic. For Buchanan, realism requires that we (1) start from the here and now, and (2) only consider attainable institutional options. We might like to fundamentally remake society from a blank slate, but we need to consider the constraints imposed by the status quo. We might want public offices manned by angels, but there is no reliable way of guaranteeing this is the case.

Buchanan recognised that political outcomes within a set of rules are governed by the interests and constraints of various political actors and that no individual can control the resulting outcomes. Politics, as emphasised in chapter eight, is a spontaneous order – 'the result of human action, but not the execution of any human design' in Adam Ferguson's colourful phrase (Ferguson, 1995, p. 119). While rational choice theory is often criticised as being excessively individualistic, its conventional version is better seen as a structural theory in which individual actions are determined by exogenous incentives. Agents in rational choice theories have preferences, but the prominence of representative agent theories in economics and rational choice politics makes the claim that rational choice theory in general emphasises individual agency over social structure a shaky one to say the least. Rational choice models are built of individual agents, but those agents are seriously constrained by the exogenously given structure of the model. In a normal form game between two players, individuals choose a row or a column, but never a cell (Kliemt, 2006).

The feasibility constraint on normative theory can be considered at various levels of stringency. A weak feasibility requirement might insist only that logically possible alternatives be considered. A more stringent requirement would restrict attention to stable equilibria, and an even more demanding one might additionally insist on there being a plausible path from here to there. The appropriate level of feasibility constraint depends on the purpose of our normative theorising. If we are engaged in a purely evaluative exercise devoid of any ambitions of institutional reform, the stability requirement may be sufficient. If we want our normative theory to guide institutional design, however, we surely need a stronger feasibility constraint which considers the possibility of the reform being adopted given the current institutional environment. If we push feasibility analysis to its logical conclusion and recognise that we never choose cells but only rows or columns, we should focus on what we as individuals can do to shift the institutional equilibrium. This is clearly a very demanding condition which would seem to render irrelevant virtually all forms of normative political analysis.

This is essentially the point made by Thomas Christiano (2004) when he claims that normative rational choice theory is self-defeating. If rational choice theorists accept that 'ought implies can' and that the basic structure of institutions are beyond the control of any individual, Christiano argues that normative evaluation of institutional alternatives would be pointless. Individual actions collectively determine outcomes, but no individual has a significant enough influence on the outcome for evaluative knowledge to have any practical purpose. We may take a pessimistic view and think the self-defeating nature of normative public choice theory dooms us to live with inferior institutions. That is, we might agree with Gerhard Wegner (2004, pp. 339–340) that economics is 'a discipline which both conceptualizes improvements in politics but simultaneously shows why such improvements must remain unrealised.' On the other hand, we may think desirable outcomes are likely to emerge through social interaction, but not because we want them to in any meaningful sense.

Buchanan's solution to the emergent nature of politics was to ask political actors to step back and bargain over the rules of the games. If we want to alter political outcomes, we should not go tinkering with policies piecemeal but rather change the rules which structure political interactions and thus allow particular political outcomes to emerge (G. Brennan & Buchanan, 2000). A potential problem with this reasoning is that constitutions are not made in a political vacuum. Constitutions, like policies, are the result of a decentralised process of decision

making which nobody fully controls. The human weaknesses of selfishness and irrationality are present at the constitutional level, and this means that constitutions are not the impartial and powerful things many constitutional political economists take them to be (G. Brennan & Hamlin, 2002; Crampton & Farrant, 2004; de Jasay, 1989; Farrant & Paganelli, 2005; Farrant, 2004; R. McGuire & Ohsfeldt, 1986, 1989; R. McGuire, 1988). As Andrew Farrant (2004, p. 449) puts it, Buchanan's constitutional political economy does not rid itself of romance entirely, but lets it in through the back door by taking a romantic view of the impartiality of constitutional decision making and the binding power of constitutional constraints.

It is true that in most cases an individual voice cannot expect to make a difference, but politics is not a solitary pursuit. Buchanan's contractarianism emphasises the cooperative nature of politics, and Mackie's mandate model of democracy emphasises the fact that political actors see themselves as contributing to a collective effort rather than individually attempting to bring about some outcome. In a tautological sense all action is taken individually, but decentralised individual action can often result in spontaneous or conscious cooperation. Political insignificance is a social dilemma, and as Elinor Ostrom (1990) and others have shown, such collective action problems can often be solved through human creativity in bargaining and institutional tinkering.

Representative democracy as it exists in developed countries today does an unusually good job of protecting against predation and securing economic growth, but it is far from perfect. The question for those seeking improvement and aware of feasibility constraints is whether democracy as it exists today provides sufficient mechanisms which enable and incentivise individuals to cooperate in the improvement of democratic institutions. If this is not the case, it is unclear whether *any* reforms pass the feasibility test in its strong form. Policy and institutions might drift, but if we as political theorists, policy analysts, and activists cannot in any real sense influence the direction of drift, we might as well pack up and go home.

If we accept the constitutional imperative of stepping back from everyday politics and looking at rules, what we need to evaluate the fatalist claim is a theory of constitutional entrepreneurship. When can individuals or groups initiate constitutional change, and are such periods of change likely to lead to improvement? The latter question is of course very context-sensitive, but the only plausible answer to the former question is 'not very often.' This does not automatically lead us to the fatalist position, however, since it may be that

constitutional moments are rare but extremely empowering. Returning to the evolutionary framework, it may be that constitutional evolution is 'punctuated' in the sense that there are long periods of stasis interrupted by short bursts of radical change (Eldredge & Gould, 1972). One such punctuation seems to be the readjustment of the English civil war and Glorious Revolution; another is the opening of the American frontier. Constitutional rules are difficult to improve upon in the course of everyday politics, but periods of instability and the opening of new frontiers provide conditions under which individuals acting cooperatively can make a difference. If this is the case, those seeking institutional change will need to wait for the next crisis or, more optimistically, the next frontier.

It is also worth noting that constitutions and policies are endogenous to preferences, and preferences can to a certain extent be changed. Buchanan recognised this when he wrote of the need for a 'constitutional attitude' among the general population as a prerequisite for meaningful constitutional reform (G. Brennan & Buchanan, 2000, Chapter 9). There is an interesting irony and a satisfying symmetry to this claim. Constitutional political economy tells us to ignore the players and focus on the rules of the game, but the only way to change the rules of the game is to change the players.

Needless to say, there are serious feasibility issues with the idea of persuasion as a strategy for reform. If we take a conventional rational choice view of preferences as instrumental and beliefs as rational, the prospects for persuasion seem very slim. The only mechanism would seem to be the discovery and dissemination of new information to a large audience, which for most of us in the current media-saturated and globalised world would not be a realistic prospect. Rationally irrational or expressive voters, on the other hand, will respond to rhetoric and framing, which is amenable to more small-scale change. The chances of an individual altering the institutional equilibrium through persuasion are surely small, but they are increased by the revisionist factors of expressive preference and rational irrationality. Unless the truth has an advantage over falsehood in persuasion there is no reason to think that this makes institutional improvement more likely, but it does potentially restore some power to individuals and thus gives normative public choice theory some practical purpose (Caplan, 2010; Stringham & Hummel, 2010; Stringham, 2011).

Moreover, it may be that radical and widespread preference change is more likely to occur due to individual action than we might estimate by looking at publicly

expressed preferences. Kuran (1989, 1995) argues that preference falsification produces a self-reinforcing type of conformity which can be disrupted by small changes in public preferences. If people prefer to publicly express their true preferences but only when a sufficient number of others share their preference, there may be significant groups of preference falsifiers who would be willing to public express their true preferences if a sufficient number of others did likewise. If individuals differ in terms of the threshold at which they will reveal their preferences, we may see cascades of preference revelation following from a relatively small number of individuals revealing their preferences. Such 'availability cascades' can also happen without preference falsification if people condition their beliefs on the stated beliefs of others or if the expressive value of an opinion is increased by its popularity (Kuran & Sunstein, 1999). Again, there is no guarantee that such processes will produce good outcomes rather than bad, but it does open the possibility that individuals can significantly shift the institutional equilibrium.

9.5. Conclusion

I have repeatedly argued in this thesis that rational choice theory as a method provides a useful way of structuring argument in order to make assumptions explicit and prevent covert leaps of logic. At the same time I have insisted that the more specific assumptions of the *homo economicus* model need to be relaxed in order to tackle a number of interesting questions. In this I follow Brennan and Hamlin's revisionist method, which has already produced a great deal of important theoretical work and a small but interesting empirical literature. I have also claimed that the scope of revisionist public choice theory ought to be widened to include other factors such as the epistemic, the dynamic, and the evaluative.

Revisionist public choice theory is an interdisciplinary exercise, and at present the disciplines involved are philosophy, political science, and economics. In arguing for increased focus on epistemic factors and the use of experimental methods, I have implicitly been suggesting that psychology should be included as an important discipline for the future of the revisionist project. What we need, I think, is a behavioural public choice theory to match the behavioural economics which has documented the imperfections of rationality and the ways they are overcome by real humans making real choices. Explicit experimental comparison of individual and collective choices in the face of uncertainty and biasing influences has been rare, and it seems to me that there is serious scope for empirical testing of

revisionist theory here. At the same time, revisionist theorists need to extend their understanding of how expressive preferences and esteem are interpreted and transmitted in political, relative to economic, contexts. The claim that people seek esteem seems to me obviously true and Brennan and Pettit's (2004) analysis gets a lot of traction out of some very basic assumptions, but if we want to go further in this direction, it seems that we might also want to welcome sociologists into the revisionist public choice theory family.

The need to sharpen the psychological and sociological aspects of revisionist public choice theory once again points us towards Schumpeter as its patron saint. In a few short pages, Schumpeter (2003, pp. 256–264) sketched an account of political behaviour amenable to economic analysis while being aware of the psychological and sociological issues in play. Schumpeter also subjects the classical doctrine of democracy to philosophical analysis and concludes, like social choice theorists such as Arrow (1951) and Riker (1982), that the notion of collective preference is meaningless (Schumpeter, 2003, pp. 250–256). These arguments are informal and often vague, but it seems to me that revisionist public choice theory has a lot to learn from Schumpeter's study of politics using the tools of economics, philosophy, psychology, and sociology.

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