

HETEROGENEITY, VOTING, AND PUBLIC POLICY¹

Adam Martin
George Mason University

Richard E. Wagner
George Mason University

ABSTRACT

By distinguishing between surface- and deep-level heterogeneity, this paper explores how heterogeneity among voters might be incorporated into a theory of political economy. Central to this exploration is the distinction between organizations and orders. Existing theories of political economy typically assimilate a state to an organization, and with an election being a vehicle for choosing among competing plans for the organization to pursue. This treatment imposes a deep homogeneity among voters as an analytical point of departure. In contrast, we advance a treatment of politics as orders, with many different organizations operating within their boundaries. This alternative formulation provides analytical space for deep heterogeneity to enter the analysis, and also brings into the analytical foreground the constitutional framework within which state policy emerges.

A theoretical framework can be seductive through the powerful illumination it can cast on its object of examination. The power of this illumination brings to mind the story of the person who searched for missing keys under a lamppost because the light was brighter there. The theoretical equivalent of bright light is analytical tractability, and there is much to be said for developing theories in analytically tractable ways. At the same time, however, analytical tractability can be a seductive snare that avoids gnarled and knotty issues that are nonetheless pertinent to the subject at

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hand. This snare can form because most of the objects we examine in the social sciences are not directly apprehensible to the senses but rather are constructed through some prior act of theorizing. We can observe someone walking into a voting booth. The claim that such acts of voting constitute selection among options for public policy in a democracy, however, is not something that can be observed directly; rather, it is an inference that arises out of a particular theoretical framework. Different theoretical frameworks can yield different implications about the connection between voting and policy.

This paper explores how heterogeneity among voters might be incorporated into a theory of political economy. Starting with Downs's (1957) adumbration of Hotelling's (1929) and Smithies's (1941) treatments of spatial competition, electoral competition has been treated as the instrument by which public policy is selected in a democratic polity. With voter preferences abstracted to a space that is continuous, twice-differentiable, and common to all voters, elections tend to produce a center-of-mass outcome. For a single dimension, public policy maximizes the utility of the median voter. For higher dimensions the median is an elusive notion, and a similar center-of-mass outcome is achieved by probabilistic voting. These spatial models have been employed widely and successfully in political economy, as illustrated by Hettich and Winer (1999), Persson and Tabellini (2000), Drazen (2000), and Besley (2006); however, their ability to accommodate heterogeneity among voters is pretty much limited to surface-level heterogeneity within a context of deep-level homogeneity.

We start by distinguishing surface from deep heterogeneity, after which we explain how extant treatments of spatial competition typically entail deep-level homogeneity within a form of surface-level heterogeneity. The re-

mainder of the paper explores how theories of political economy might be modified to accommodate deep-level heterogeneity among voters. One facet of this exploration considers an alternative to the common spatial representation of voter preferences by treating preference as entailing structure, which in turn yields a different orientation toward elections. Another facet treats politics as orders and not organizations (Hayek 1973). While elections obviously select among candidates, they don't truly select among policies within this alternative analytical setting. Instead, they select among people who are seeking to participate with others in the constituted processes through which policy emerges. This alternative treatment of heterogeneity and policy brings some constitutional matters into prominence, as we discuss in closing.

SPATIAL COMPETITION: SURFACE HETEROGENEITY AMIDST DEEP HOMOGENEITY

The theory of spatial competition treats voters as having preference orderings over policies and politicians as competing to satisfy those voter preferences. This treatment has enjoyed wide usage and success, as surveyed in Enelow and Hinich (1984) and as applied to public finance in particular in Hettich and Winer (1999). Within this theoretical framework, candidates are construed as proffering policies to voters, which in turn makes elections the arena where policy is chosen. This formulation has several features that limit the scope for heterogeneity to manifest itself within the polity: while these features allow surface-level heterogeneity, they tend to suppress deep-level heterogeneity.

For instance, utility functions are assumed to be free of any such structure as would be represented by lexicographical orderings that might differ among voters. All vot-

ers are presumed to be represented by the same preference surface, differing only in their preferred location on that surface. This is an analytical construction that generates nice center-of-mass properties while at the same time it bypasses any possible deep-level heterogeneity. In so doing it avoids the problems that Kenneth Arrow (1963) highlighted long ago. Within this framework, surface-level differences can exist regarding the amount of some collective activity that people prefer; at the same time, however, there is deep-level unanimity as to what activities should be undertaken collectively.

Figure 1 illustrates our point about surface heterogeneity combined with deep-level homogeneity. This model, which is a variation on Buchanan (1964), contains three voters who are assumed to have equal incomes but to

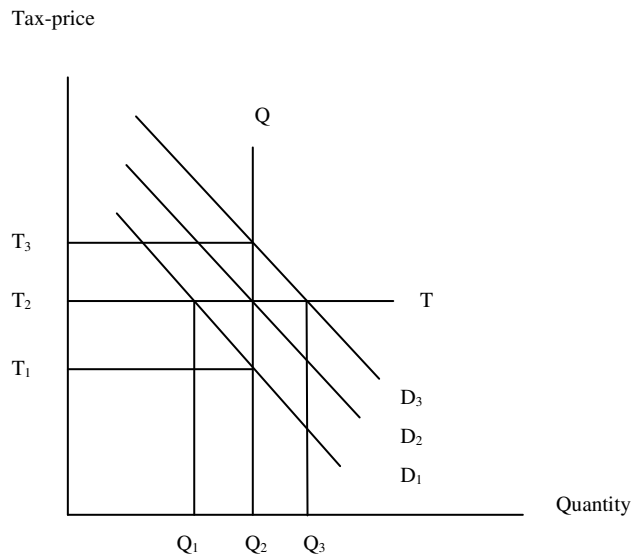


Figure 1: Surface Heterogeneity with Deep Homogeneity

differ in the strengths of their preference for some collectively supplied service, as illustrated by their differing demand functions D_1 , D_2 , and D_3 . Suppose the polity is financed by a flat-rate tax on income, with each voter paying $T=T_2$ per unit. In this setting the voters will disagree about the amount of collective activity to support, and with the median outcome being Q_2 . Heterogeneity would seem to be present because one voter desires Q_1 while another desires Q_3 , and with only one of the three voters preferring Q_2 . This preference heterogeneity, however, is only surface-level heterogeneity, in that it is capable of being arbitrated away through compensation. The set of Lindahl-taxes, also depicted in Figure 1 by the set $[T_1, T_2, T_3]$, illustrates that the same set of people can be converted into a homogeneous group, all of whom support the collective provision denoted by $Q = Q_2$. In this case, what appears to be heterogeneity can be transformed into homogeneity through tax changes. The heterogeneity is a surface-level phenomenon that rests upon a presumed base of potential concord among voters.

The presumption of deep homogeneity is also reflected by the treatment of electoral competition from the perspective of agency theory, as explored in Besley (2006). A typical formulation treats political campaigns as centered on each candidate's program for collective activity, as denoted by the government's budget $tY = g^* + r$. In this formulation, t is a flat-rate tax applied to a comprehensive income base Y , g^* denotes the budget that corresponds to some Lindahl-like efficiency standard, and r denotes the rents that politicians capture. An increase in rents will require some combination of higher taxes and less provision of public goods, and there is good reason for thinking that political competition will generally operate to push rents toward zero, as Persson and Tabellini (2000) explain.

What allows competition to restrict rents so sharply is the presumption of deep-level homogeneity among voters. Voters, as illustrated by Figure 1, agree among themselves as to what constitutes desirable collective output and differ only in the intensities of their desires. There is no genuine or deep controversy among voters in Figure 1, for they all agree as to what constitutes g^* and r , so differences can be easily arbitrated away. There are no inherently conflicting desires among voters, for such conflicts are eliminated by the very construction of the analytical framework.

To give deep-level heterogeneity opportunity to manifest itself requires some alternative conceptual framework to locating preference along a common continuum. In one fashion or another it would have to be a space that had holes, gaps, and the like, and which could be called tectonic after Robert Young (1991). One illustration of such an alternative formulation is a lexicographic ordering, as examined in Yang (2001, pp. 28-30). Lexicographic ordering injects discreteness among options into settings of choice, which in turn means that some types of differences matter in ways that other types don't. To illustrate, ask how abortion or amnesty for illegal immigration would fit within Figure 1. To ask that question is, of course, to answer it. To be sure, one could always impose some imagined continuum, as by transforming the axis into one denoting at what stage in pregnancy abortion would no longer be allowed, and then ranging that interval from zero to 270 days. Such a treatment as this illustrates again how it's possible for analytical frameworks to conceal phenomenon as well as to reveal them.

If the theoretical framework requires that elections serve as the instrument for choosing among policy options, it is difficult to resist the presumption of deep-level homo-

geneity. To be sure, there are categories of models that seek to do this by postulating systematic differences across race or gender. For instance, Trebbi, Aghion, and Alesina (2008) treat alternative electoral rules (by district vs. at large) as instruments by which a racial majority can suppress a minority. In this setting, however, heterogeneity would disappear in the presence of racial homogeneity. Our concern is to allow analytical space for a deep-level heterogeneity that is independent of such visual differences. If deep-level heterogeneity is to be given space to manifest itself, the spatial theory of voting must be amended and the link between voter choice and policy selection must be modified. Candidates can still compete for electoral support, but the explanation of policy becomes a different matter. The standard treatment of spatial voting treats polities as organizations; the alternative treatment that we explore below treats them as orders (as distinguished in Hayek 1973), for deep heterogeneity among voters arises naturally when polity is conceptualized as an order and not an organization.

ORGANIZATIONS, ORDERS, AND ELECTORAL COMPETITION

Organizations and orders are both social configurations that involve numerous participants and which present images of orderliness to an observer; however, they denote distinct entities with their orderly qualities stemming from different sources. For an organization, orderliness stems from some plan that serves to coordinate the efforts of participants, and with management serving to secure that coordination as explored in the theory of corporate agency. The participants within an organization constitute a team who agree with one another with respect to organizational goals (Alchian and Demsetz 1972). In contrast, the orderli-

ness of an order stems not from some plan, but rather is an emergent feature of interaction among participants who operate with different goals and who find themselves in positions where they must accommodate their actions to those of other participants. A marching band and a moving crowd of pedestrians are both orderly social configurations. The marching band is an organization; the crowd of pedestrians is an order (as explored in Wagner 2008). Different theoretical frameworks are required to explain the orderliness of those different social configurations.

Organizations entail deep-level homogeneity with respect to the activities of the organization, due to the voluntary nature of participation within the organization. Shareholders of a corporation are homogenous with respect to corporate activities because the existence of transferable ownership creates a common focal point on corporate value. Within this deep homogeneity there can exist surface heterogeneity regarding choices among alternative programs because people may hold different beliefs about the future results of present plans. People may agree that higher corporate value is better than lower value while nonetheless disagreeing about whether providing day-care facilities on the premises will increase that value, because the answer to that question will be known only at some future date (as discussed in Wagner 2007, pp. 108-10).

When a spatial theory of voting is tied to the proposition that an election is the instrument by which policy is chosen, the polity is being treated as an organization. The competing politicians are analogized to competing corporate officers, one of whom supports a program of in-house day-care while the other opposes it. The literature on corporate agency has explored numerous channels through which managerial actions are tethered to the service of owners.

Most of these channels operate through competition in the presence of transferable ownership.

Transferable ownership reduces the complex vector of corporate activities to a scalar on which managerial competition centers. Under present management the price of shares might be \$50. A managerial contender might think that an alternative mode of operation, which would include a complex array of spin-offs, acquisitions, and re-combinations, might increase the price to \$70 and so tender an offer at, say, \$62 contingent on attracting some stipulated number of shares. A tender offer is not cheap talk, and the complex characteristics associated with this alternative corporate program can be reduced to a simple scalar measure of value. Complex programmatic characteristics are reduced to a share price, and the tendering of an offer creates a strong incentive to be accurate in making claims. The challenger's offer is a substantive expression of his claim that present management is not serving shareholders well. The challenger, moreover, is betting on the accuracy of his claim by advancing a tender offer.

Politics bear some resemblance to corporations, but a resemblance is not an identity. The absence of a market for ownership shares in political bodies means that competing claims about managerial competence cannot be reduced to a common dimension through monetary calculation. Where corporate campaigns are centered on projections of corporate value, political campaigns are spread across the various attributes of policy that would have fed into corporate value in the presence of transferable ownership. Vectors of programmatic characteristics will not be reducible to a scalar measure of value; furthermore, political campaigns reside in the cheap talk world, as no equivalent to a tender offer is advanced.

The presumption that voting chooses policy implies both that candidates engage in substantive presentations and discussions of policy options and that voters pay attention. There is no good reason to embrace either presumption. With respect to the substantive proposition, the information that is conveyed during a campaign speaks to but a miniscule portion of the policy activities of governments. One could always claim that voters use the proffered sample of policy positions to estimate the full panoply of policy positions. This, of course, assumes that not just one policy issue but all policy issues can be mapped onto a continuum as homogenous observations with some peak estimator, denying the possibility of a structured space *ex ante*. To do this would surely be to lay a formal cloak over a substantively empty box. The simple fact of the matter is that campaigns do not delve much into substance and for good reason because there would be no audience for such efforts.²

At the time of elections, the formulation of concrete policies lies months in the future; the very issue space that lawmakers will vote over is yet to be determined. Voting among policy options is impossible when those policy options do not yet exist; they will rather be constructed via an interpersonal process involving proposals, committee meetings, revisions, hearings, lobbying, reports, and a plethora of other activities. Even if some politician could reliably get his way, the array of policy stances he would have to provide would number well beyond what the election format could sustain. There is no strong reason for voters to make that large of an investment in paying attention to what would really amount to a large number of academic seminars that taken as a package would bore even most policy wonks. While the paradox of voting cannot explain the turnout of voters when it is given a purely instrumental

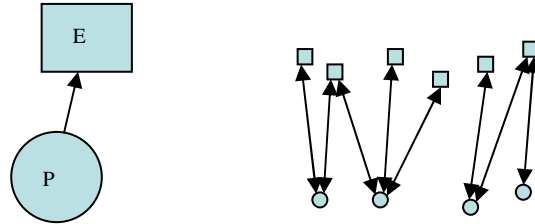
² De Jouvenal (1961) stresses the necessity of maintaining an audience.

formulation, it does yield the sensible result that people will not invest heavily in acquiring information of a technical sort that speaks analytically about the issues.

Yes, people vote, typically large numbers of them; however, voting is not the locus of policy selection, and the content of campaigns reflects this non-instrumental quality. Voting selects among candidates, but policy emerges out of subsequent interaction among various successful candidates and other, non-elected participants. The ability to be elected depends less on offering concrete policies than on selling voters on a personal narrative that gives them some sense of security about how a candidate will respond in such an uncertain future. When policy-issue space is up for grabs, character traits matter more than policy positions. The coherence of a particular persona is what voters can bet on, rather than individual actions, which can help explain why issues of personal morality factor so heavily into political campaigns. What candidates present to voters are not so much policy positions and their logic as images of themselves through which they try to project themselves favorably into a voter's affective sentiments.

CONTRASTING IMAGES OF POLITICAL ECONOMY

As a field of study, political economy involves the relationship between the two entities designated as polity and economy. There are, however, different ways of conceptualizing those entities and, hence, of conceptualizing the relationship between them. The two panels of Figure 2 depict alternative theoretical orientations toward political economy. Panel A illustrates an analytical framework that imposes deep-level homogeneity by treating polities as organizations. Polity (P) and economy (E) are each conceptualized as point-mass entities, as if they were marching



Panel A: Organization-based political economy

Panel B: Order-based political economy

Figure 2: Alternative Theoretical Configurations of Political Economy

bands. For economy, the presumption of general equilibrium achieves the reduction to point-mass status. For polity, that reduction is achieved by the center-of-mass feature of policy choice through electoral competition. Furthermore, polity and economy denote separate spheres of activity, with polity responding to opportunities remaining unfulfilled by economy as denoted by the uni-directional arrow running from P to E. This is sequential political economy, with polity acting in response to actions within economy.

To treat polities from the perspective of a theory of organization is to presume deep-level homogeneity. At the same time, deep-level heterogeneity within an organization is a recipe for conflict and turmoil because there will be differences across policy options that cannot be arbitrated away. The alternative is to treat polity as an order, and with many organizations operating within this order. Panel B presents an alternative, polycentric image of political economy, and one that is implicit in such early treatments of public choice as Buchanan and Tullock (1962) and Riker (1964), as well as such recent treatments as Ostrom (1997). Where Panel A portrays both polity and economy as organizations, Panel B portrays them each as orders which contain numerous independent organizations within their

precincts. This is coeval and not sequential political economy.

Panel B represents a fragmentation of Panel A, with Economy fragmented into six organizations and Polity fragmented into four organizations. There will, of course, be connections among various organizations within the economy as well as within the polity; however, such connections are not depicted here because showing them would complicate the exposition without changing its substance. What are shown are some connections between organizations across the two spheres, and with those connections operating in both directions. For instance, a highway department within the polity might lay a road that influences land values in the economy; alternatively, particular land owners in the economy might influence a highway department to locate a road nearby.

One prominent organization within a democratic polity is a parliamentary assembly, though by no means is it the only participating organization; moreover, it can also have characteristics of an order at work within its organizational shell, as illustrated by McCormick and Tollison's (1981) insightful treatment of legislatures. It seems quite reasonable to treat parliamentary assemblies as forms of professional partnership, and with the partners varying in seniority and influence. The services this partnership provides are of an intermediary type, similar to those provided by banks and similar financial institutions. In this vein it would perhaps be reasonable to describe a parliamentary assembly as a *peculiar* investment bank.

A parliament intermediates between people who have enterprises for which they are seeking support and people who have means available to support those enterprises. Multiple enterprises seek support from parliament,

and these enterprises compete with one another within the order denoted as polity. The actions of parliament can be aggregated, of course, but this aggregation does not transmute polity into an organization. Parliament does not act as a unit in any but a formal sense by which any aggregate can be addressed as a unit. While members of parliament might have a common desire that Parliament be a place of prominence in society, they are separated by having different interests across the set of enterprises that are seeking support from parliament. To treat the aggregate as an acting entity is to commit what Mitchel Resnick (1994) calls the “centralizing fallacy,” which is to attribute orderly patterns to some act of will or intention when the order is an emergent feature of interaction.

It is plausible to imagine modeling a society as a landscape on which various enterprises exist. Some of these would have legislative sponsors, with their parasitical relationship to the market (Pantaleoni 1911), while others would be market-based enterprises. All such enterprises would be modeled as seeking to expand their custom, only with the different forms of enterprise governed by different rules of organization and conduct (some of this is sketched in Wagner 2007, pp. 129-48). Zones of conflict and cooperation would arise among different enterprises, and the political arena would expand or contract depending on the particular organizational efficiency this peculiar investment bank is able to attain. Government would be a source of productive activity *within* society. Of course, with heterogeneous preferences “production” does not carry the necessarily positive-sum connotations of standard treatments; however, regardless of how someone might evaluate such production, government would be a participant within the complex adaptive system that society represents, and its

operation would emanate throughout society in thoroughly oblique and knotted fashion.³

In this formulation, the locus of rationality in politics resides not at the point of voting but in the work of the parliamentary assembly. The standard public choice claims about the lack of careful deliberation over the casting of ballots is correct, only this does not mean that low rationality pervades political processes. Yes, voting is a low rationality process, but voting is not where policy is selected. Only in the most formal of post hoc formulations, as illustrated by Granger causation, could it be reasonably maintained that voting selects policy. Instead, voting selects among candidates who seek positions within the parliamentary assembly.

This doesn't mean that elections are disconnected from policy, for policy emerges out of interaction within legislative processes. As a first order approximation, we would claim that it is irrelevant how people are selected for a parliamentary assembly. For instance, they could be selected by lot rather than through voting. Our claim is that the work of articulating and promoting policy emerges out of the structured interactions within the parliamentary assembly and associated organizations within the polity. Indeed, it is this on-going work that gives salience to the small subset of policy issues that make appearances in election campaigns.

While we are willing to advance the first order thesis that the differences between selection by election and selection by lot are nil because elections do not provide the locus of rational action within the polity, it's also plausible

³ Da Empoli (1926) presents an imaginative analysis of tax incidence in terms of an oblique shifting of burdens as an alternative to the standard dichotomy between forward and backward shifting.

that there are significant second-order differences between the two methods of selection to staff a parliamentary assembly. Think back on Shakespeare's character Jacques in *As You Like It*: "All the world's a stage . . ." We are all performers in a drama in which we write our own parts, though in doing so seek to make connections with other parts and participants. Where on this cosmic stage is one's action located? Within a capitalist society much of center stage is occupied by entrepreneurs, with political figures taking supporting roles. Elections would seem to provide political figures with a vehicle for gaining positions of societal prominence when compared against selection by lot. With this change in prominence would surely come second-order feedback consequences for public policy, and perhaps even of significant magnitude.

A CONSTITUTIONAL CONCLUSION

Our formulation treats polities as orders and not as organizations, thereby allowing deep-heterogeneity among voters to come into the analytical foreground. Organizations have choice-theoretic coherence, orders do not. Markets do not entail choice-theoretic coherence: they support both butchers and vegetarian chefs, both producers of cigarettes and producers of nicotine patches. It is the same with polities: there are programs that subsidize job retraining as well as programs that subsidize unemployment. Thinking about orders and their reform is different from thinking about organizations and their reform. Organizations can be reformed by an act of will; orders must be reformed through changes in the constitutive rules that govern relationships among participants within the order. Public policy for an order must to a significant extent be constitutional policy.

Thomas Schelling (1978) presents a wide ranging treatment of cases where the spontaneous ordering that is generated through interaction among participants might yield emergent patterns that might not be regarded by those participants as desirable as some alternative pattern that conceivably could have been generated. How to attain superior outcomes in this setting is a challenging and knotty issue. While organizational outcomes can in principle be changed through a singular act of will, there is no singular point where the insertion of power will shift the direction of movement of an emergent order. A conductor can change the direction of the band's movement in an instant. Changing the movement of a crowd of pedestrians is not so simple. For emergent phenomena, the constitutional rules of the game, and the order of actions that emerge out of those rules, replaces the position of the ruler-as-conductor as the focal point for addressing issues arising out of recognition that an emergent order might have generated undesirable features.

Both the literature on constitutional political economy, as illustrated by Buchanan (1990) and Brennan and Euseppi (2004), and the related literature on *Ordnungstheorie*, as illustrated by Eucken (1952) and Liepold (1990), conceptualize political economy in similar fashion to the polycentric arrangement denoted by Panel B of Figure 2. Common to both literatures is a bi-level analytical framework, as noted, for instance, in Vanberg (1988) and Kasper and Streit (1998): the constitutional level concerns the establishment and maintenance of rules of just conduct; the operational level concerns the patterns of human activity and organization that people generate through interaction within that framework of constitutive rules. Once it is recognized that polity as well as economy constitute spontaneously generated orders, the constitutional framework becomes the proper arena for addressing issues that arise from

what might appear to be undesirable though emergent features of those orders.

With respect to deep-level heterogeneity, the prime constitutional problem would seem to be one of maintaining a creative tension among people who operate on different pages, so to speak, rather than seeking to get them all on the same page. Jane Jacobs (1992) is instructive with respect to deep-level heterogeneity when she outlines two “moral syndromes”—clusters of interrelated precepts—that appear to govern a great deal of social approbation and disapprobation. The “commercial” syndrome extols honesty, thrift, innovation, and trade; the “guardian” syndrome extols loyalty, prowess, and tradition, and shuns trade. Noting that these two syndromes often conflict, Jacobs hypothesizes that they tend to promote success in two distinct but complementary sorts of activity. Commercial activity generates wealth and knowledge, while guardian activity offers security from domestic and foreign enemies for the commercial sphere. Both syndromes are necessary for a society; however, they also conflict: willingness to trade is invaluable in business, but a guard that can be bribed is no guard at all. Potential problems arise when the principles of one syndrome are applied to activities associated with the other, resulting in “monstrous hybrids,” such as when government props up inefficient monopolies.

Jacobs's distinction between commercial and guardian syndromes closely parallels our distinction between economy and polity. The symmetry may not be exact, but it is compelling: guardian virtues seem well suited to life in the polity, while commercial virtues go along with the successful operation of the market economy through private property. This parallel raises two important points. The first is that selection mechanisms—which sort for and inculcate character traits in various social positions—merit careful

consideration at the constitutional level. Furthermore, there is no reason to presuppose that exactly the same character traits are desirable in both polity and economy. Those of a traditionalist persuasion may find the commercial syndrome distasteful, while libertarians may reject wholesale the notion of guardian virtues. While Jacobs's particular lists may have any number of flaws, such dismissals seem shortsighted. Normative evaluations of selection mechanisms are poorer to the extent that they gloss the heterogeneity of the social fabric. The operative question should not be whether one syndrome can triumph over another, but whether social institutions can sort and inculcate them in their appropriate spheres.

The second important point to be made about selection mechanisms is that, in Jacobs's terminology, the commercial virtues tend to work themselves out when free from political interference. Traders *do* tend to be honest, innovative, and thrifty; if not, the profit-and-loss selection mechanism tends to put them out of business. Whatever feedback mechanism exists between political activities and the guardian virtues surely operates less robustly within the polity. The guardian syndrome may represent effective stewardship of the polity, but the selection process surely operates less strongly in this respect. As Wagner (2007) puts it:

Public squares and private squares each derive from human nature. That nature is complex, and contains both good and bad, beautiful and ugly. There is no doubt that the market square can accommodate plenty of badness and ugliness. Yet the conventions of private property surely limit the reach of that badness and ugliness. While the activities of the public square emerge out of our natures, the grammar by which the public square

must operate gives special play to the bad and ugly side of the Faustian bargain that necessarily accompanies the use of force in human relationships (p. 202).

The constitutional challenge is not to try to create some average or representative syndrome. As a practical matter, any such effort would surely fail. As a theoretical matter, the employment of a type of representative agent framework must necessarily obscure some important constitutional challenges regarding politics in the ordering of human activity, as Vincent Ostrom (1997) explains cogently. Rather than seeking to homogenize what cannot be homogenized, the relevant constitutional challenge would seem rather to create a fruitful tension between the two syndromes, or between whatever other dimensions of deep-level heterogeneity might be thought to be significant.

REFERENCES

Alchian, A. A. and Demsetz, H. (1972). "Production, Information Costs, and Economic Organization." *American Economic Review* 62: 777-95.

Arrow, K. J. 1963). *Social Choice and Individual Values*, 2nd ed. New York: John Wiley.

Besley, T. (2006). *Principled Agents? The Political Economy of Good Government*. Oxford: Oxford University Press.

Brennan, G. and Eusepi, G.. (2004). "Fiscal Constitutionalism." In *Handbook of Public Finance*, J. G. Backhaus and R. E. Wagner, eds. (Boston: Kluwer Academic Publishers), pp. 53-76.

Buchanan, J. M. (1964). "Fiscal Institutions and Efficiency in Collective Outlay." *American Economic Review*, Proceedings 54 (May): 227-35.

Buchanan, J. M. (1990). "The Domain of Constitutional Economics." *Constitutional Political Economy* 1: 1-18.

Buchanan, J. M. and Tullock, G. (1962). *The Calculus of Consent*. Ann Arbor: University of Michigan Press.

Da Empoli, A. (1926). *Teoria dell'Incidenza delle Imposte*. Reggio Calabria: Vitalone.

De Jouvenal, B. (1961). "The Chairman's Problem." *American Science Review* 55: 368-72.

Downs, A. (1957). *An Economic Theory of Democracy*. New York: Harper & Row.

Drazen, A. (2000). *Political Economy in Macroeconomics*. Princeton, NJ: Princeton University Press.

Enelow, J. M. and Hinich, M. J. (1984). *The Spatial Theory of Voting*. Cambridge: Cambridge University Press.

Epstein, R. A. (1985). *Takings: Private Property and the Power of Eminent Domain*. Cambridge: Harvard University Press.

Eucken, W. (1952). *Grundsätze der Wirtschaftspolitik*. Tübingen: J. C. B. Mohr.

Hayek, F. A. (1973). *Rules and Order*. Chicago: University of Chicago Press.

Hettich, W. and Winer, S. L. (1999). *Democratic Choice and Taxation*. Cambridge: Cambridge University Press.

Hotelling, H. (1929). "Stability in Competition." *Economic Journal* 39: 41-57.

Jacobs, J. (1992). *Systems of Survival*. New York: Random House.

Kaspar, W. and Streit, M. E. (1998). *Institutional Economics: Social Order and Public Policy*. Cheltenham, UK: Edward Elgar.

Leipold, H. (2000). "Neoliberal Ordnungstheorie and Constitutional Economics." *Constitutional Political Economy* 1: 47-65.

McCormick, R. E. and Tollison, R. D. (1981). *Politicians, Legislation, and the Economy*. Boston: Kluwer Academic Publishers.

Ostrom, V. (1997). *The Meaning of Democracy and the Vulnerability of Democracies*. Ann Arbor: University of Michigan Press.

Pantaleoni, M. (1911). "Considerazioni sulle proprietà di un sistema di prezzi politici." *Giornale degli Economisti* 42: 9-29 and 114-33.

Persson, T. and Tabellini, G. (2000). *Political Economics: Explaining Economic Policy*. Cambridge: MIT Press.

Resnick, M. (1994). *Turtles, Termites, and Traffic Jams: Explorations in Massively Parallel Microworlds*. Cambridge: MIT Press.

Riker, W. A. (1964). *The Theory of Political Coalitions*. New Haven, CT: Yale University Press.

Schelling, T. C. (1978). *Micromotives and Macrobehavior*. New York: Norton.

Smithies, A. (1941). "Optimum Location in Spatial Competition." *Journal of Political Economy* 49: 423-39.

Trebbi, F., Aghion, P., and Alesina, A. (2008). "Electoral Rules and Minority Representation in US Cities." *Quarterly Journal of Economics* 123: 325-57.

Vanberg, V. (1998). "Ordnungstheorie as Constitutional Economics." *ORDO* 39: 17-31.

Wagner, R. E. (2007). *Fiscal Sociology and the Theory of Public Finance*. Cheltenham: Edward Elgar.

Wagner, R. E. (2008). "Finding Social Dilemma: West of Babel, not East of Eden." *Public Choice* 135: 55-66.

Yang, X. (2001). *Economics: New Classical Versus Neoclassical Frameworks*. Oxford: Blackwell Publishers.

Young, R. A. (1991). "Tectonic Policies and Political Competition." In A. Breton, et al. eds, *The Competitive State* (Dordrecht: Kluwer Academic Publishers), pp. 129-45.

AUTHORS' CONTACT INFORMATION

Martin: amartini@gmu.edu

Wagner: rwagner@gmu.edu

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