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BOOK REVIEW

The Oxford Handbook of Public Choice: a masterful compendium

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Abstract
This is a review article of *The Oxford Handbook of Public Choice*, edited by Roger Congleton, Bernard Grofman, and Stefan Voigt. This two-volume collection has 90 chapters, with each chapter averaging 20.4 pages (excluding the volumes' indexes). My subtitle conveys my judgment of this work. The articles are written for serious readers, and they give clear and concise statements of the material they cover. Someone who reads one of the articles will arrive in the vicinity of the frontier of the mainstream of public choice theorizing as this has developed since the middle of the twentieth century. Despite my position from somewhere outside the public choice mainstream, I acknowledge readily and enthusiastically the ability of the essays in this Handbook to convey the contemporary state of public choice theorizing. The editors and authors deserve congratulations for their fine work.

Keywords Public choice · Constitutional political economy · Voting · Elections · Interest groups · Rent seeking · Political parties · Dictatorship

JEL Classification A12 · A33 · D70 · H40 · P50

I do not choose lightly my subtitle reference to this two-volume set of essays as constituting "a masterful compendium." This two-volume collection has 90 chapters, with each chapter averaging 20.4 pages (excluding the volumes' indexes). My subtitle of "masterful compendium" summarizes my judgment of this work. The articles in the volumes are uniformly accessible to serious readers. They give clear and concise statements of the material they cover. Someone who works through an article in this *Handbook* will arrive in the vicinity of the frontier of contemporary thinking on

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that topic. To the sure, the essays in the *Handbook* presents a mainstream orientation toward public choice theorizing as this mainstream has taken shape since the middle of the twentieth century. This mainstream quality is not advanced as a point of criticism despite my personal orientation that lies somewhere outside that mainstream, but is advanced simply to note that the material readers will encounter in these volumes corresponds to what most thinkers have in mind when they refer to "public choice." The coverage in the *Handbook* is encyclopedic, and the material covered within the volumes is masterfully organized.

In one of the remote regions of my mind is buried a recollection from my early teaching in the late 1960s, of a publisher who produced a large number of free-standing pamphlets on a subject which an instructor could select among in generating textual material for a course. While that mode of publication did not persist, the essays in this *Handbook* carry me back to that memory. At $350, I would not think of requiring students to buy these volumes for a course on public choice that I was teaching. All the same, I can easily imagine selecting from among 20–30 of those essays to constitute the textual material for such a course, and with different selections being made as I varied course content from semester-to-semester. The essays in these volumes are simply that good, that clear, and that accessible to serious undergraduates and beginning graduates to allow such usage. Reading these volumes carries me back to that long-forgotten time early in my professional life.

Each volume contains 45 chapters, averaging 20.4 pages per chapter, including references but excluding the indexes that accompany each volume. Those essays provide encyclopedic coverage of the immense variety of scholarly work that comprises what now constitutes the broad mainstream of public choice theorizing. Someone who wanted to teach a semester's course on public choice to serious students could do no better in my judgment than select from among these essays. I should perhaps explain that these essays are written for serious and not for casual students. Productive reading of these essays requires readers to make diligent effort to engage the material. Readers who make that effort will arrive in the vicinity of the frontier of modern thought pertaining to that topic. These essays are wonderfully composed forays into theoretical material, as distinct from being meta-theoretical excursions over the surface of that material. The editors deserve hearty congratulations for shepherding these volumes into this final condition.

Reviewing this *Handbook* presents a significant, essentially moral problem for me as reviewer. In reviewing a collection of independent essays, I like to offer description of each contribution, as against describing only those entries that elicit my strongest interest. To proceed this way for this Handbook would limit each entry to around 60 words, given a length limit in the vicinity of 6000 words. To give even modest consideration of each essay would require around 20,000 words, using "modest" to entail about 200 words. Accordingly, I will forsake discussing individual essays, save for the three introductory essays, and thereafter I will limit my descriptions to generic discussions of the five remaining parts into which the volumes are divided.

While I place objectivity over subjectivity in this review, subjectivity is unavoidably present because substance is not independent of method. Different orientations toward matters of scope and method thus unavoidably generate different orientations

toward substantive questions; differences in method will manifest in substantive differences. For instance, a methodological presumption that prices are data that are prior to economizing action precludes substantive treatment of entrepreneurial action wherein prices are advanced as hypotheses that might lead to the formation of new prices. The objects of theoretical inquiry are not independent of the methods of inquiry. As I shall examine more fully below, a society that is perceived as a massed entity will call for different methods of inquiry than would be required to think about society perceived as a multiplicity of smaller but occasionally interacting entities. Where the perception of society as a singular mass leads almost inexorably to theories based on equilibrium, the perception of societies as arenas of interaction among differently constituted sub-masses leads almost surely to evolutionary-type theories set in motion by the energy released through interactions among those sub-masses of entities.

1 Editors as lexicographers

These volumes present a wide-angled portrait of public choice, including constitutional political economy. The 45 chapters of volume I pertain to public choice; the 45 chapters of volume II pertain to constitutional political economy, though this volume also contains a subset of essays titled "applications, extensions, and methodological matters." While I have already described these volumes as comprising a masterful compendium, I should also note that any such designation must be made inside some frame of reference that leads to the designation "masterful."

At this point, we encounter the lexicographer and also the grammarian. At one level, lexicographers and grammarians describe how people use language. They are engaged in a form of scientific activity, and as such adopt the posture of standing apart from their object of interest. While lexicography is primarily a scientific activity, the findings of lexicography also exert normative force. The way that force is exerted surely contains lessons for the practice of social science. For the most part, people use the findings of lexicographers and grammarians to inform their own writing and speaking. Lexicographers don't legislate language directly. Yet they possess semi-legislative authority by virtue of the ability of their scientific work to inspire people to use their work. Using language well helps people to communicate their ideas better to other people, which redounds to the benefit of the speaker. At the same time, influencing how people use language influences their feelings and sentiments, thereby influencing the tenor and tone of societies, as Klemperer (2006) illustrates luminously in his examination of the use of language within the Third Reich.

Language is not static; it entails more than simple communication. It transcends simple communication through its ability to express feelings and change perceptions, as Klemperer (2006) illustrates. People continually invent new words and patterns of usage. Some of those inventions are emulated within a population and can lead to changes within a society. For instance, the near-universal use of the masculine pronoun has over the past half-century or so been giving way to a more self-conscious choice of pronoun that often leads to a plural pronoun (they or their)

being used to stand for such a singular noun as, say, butcher or politician. Hence, we hear such linguistical deformities, when viewed against conventional usage, as "You get better cuts of meat from an independent butcher because they [not he] are [not is] not constrained by a corporation's butchering template." This evolving usage conflicts with long-standing grammatical norms, but there is good reason to think this situation is temporary and that the grammars of the future will have reconciled such usage into coherence as societies slowly adapt to recognition that women no longer have to give birth to 8–12 children to have two or three of them survive into adolescence—not to mention the growing home delivery of groceries along with self-cleaning ovens, robotic vacuum cleaners, and the like.

In other words, there is social structure which we perceive at any instant. The analysis of structure must stand outside any passing of time. But we also live inside processes of social evolution, the perception of which poses different analytical challenges from the analysis of the properties of extant structure. As social creatures, we live in both worlds, accepting structure and participating in change. As forms of social theory, mainstream public choice seeks to render intelligible the reality we experience. But that reality is also in motion, as is linguistic convention. That motion is likewise subject to scientific analysis, only it cannot take as data what a theory of social or political structure takes as data. Multiple analytical windows are required to examine the complex material that societal living together presents, much as Kastner (2015) sets forth in her transactional interpretation of the relationship between traditional and quantum physics, with the latter dealing with phenomena that reside outside spacetime.

2 Part I: introductory essays

This part contains three essays, and here and only here will I violate my principle for this essay of not delving into individual essays. For me, these three essays constitute a peculiar set of introductory essays. The volumes have three well-known editors in Congleton, Grofman, and Voigt. For this type of volume, three introductory essays to set the stage for presentation of the rest of the essays should be penned by the editors. Those essays would convey to readers insight into construction of the volumes. The following 87 essays range widely over the material of public choice and political economy, and the overall construction of the volume can surely be traced to the differences among the editors in their particular interests. In writing this, I am thinking of the two separate appendixes Buchanan and Tullock wrote to the *Calculus of Consent*. While that book was co-authored, readers can consult the individual appendixes and trace the differing interests and emphases of the co-authors exhibited there at work throughout the book.

An assemblage of this gigantic scope, I would have thought, would likewise have allowed readers to see the different interests and emphases among the editors that went into assembling this collection. This is not the case, and I will confess to being disappointed in this asymmetry between the editorial masthead and the introductory essays. I say this only to register my disappointment in how the volume is presented;

I most certainly do not say it to register any disappointment about the quality of the introductory essays, for such disappointment I do not have.

Make no doubt, the two introductory essays not written by Congleton are wonderful pieces that fit well in the front of these volumes. Where Congleton presents in Chapter 1 a succinct summary of rational choice theory applied to politics, Alan Hamlin introduces in Chapter 2 some significant considerations pertaining to the creation of governments, wherein governments are entities to be constructed and are not primitive data. Where Congleton examines rationality and politics within an abstract frame of reference without contacting details about particular governments, Hamlin broaches problems attendant to the formation of particular governments, giving especial attention to the constitutional problems such formation presents. In Chapter 3, Dennis Mueller presents a crisp synopsis of many of the prime contributors to public choice theorizing, starting with Condorcet and Borda in the eighteenth century and finishing with the well-known theorists during the post-war period of the twenty century who are household names to all scholars interested in public choice and constitutional political economy. To be sure, and to add to my perplexity about the asymmetry between the editorial masthead and the introductory essays, Chapter 39 also treats some history of public choice ideas.

3 Part II: voting and elections

Voting is treated throughout the essays presented in Part II (Chs. 4–23) as a method for aggregating preferences. Within these 20 chapters, a reader will find coverage of nearly all topics regarding voting and elections that public choice theorists have explored. The median voter model as one of the workhorses of public choice theory receives extensive coverage in its many aspects, including agenda control, Arrow problems, the institutional source of stability, spatial modeling, strategic voting, expressive voting, rational ignorance, logrolling in relation to voting, campaign finance, and the manipulation of the outcomes of voting. For all these topics and more, the essays present clear and concise coverage of their topics.

While these essays differ in how that aggregation takes place, just what it is that is being aggregated, and to what effect, they all treat voting as the decisive point at which the phenomena of voting arise. This decisiveness holds regardless of whether the vote maximizes utility for a median voter, produces an outcome that maximizes utility for a decisive subset of voters, or reflects some kind of unconstrained expression of desire by a decisive, non-instrumental voter. However that aggregation of votes is characterized, aggregation is a time-honored procedure for constructing such theories by explaining observed phenomena with reference to other observed phenomena. This procedure is similar to that of classical physics, as Kastner (2015) explains in her treatment of the transactional interpretation of quantum theory. Kastner's title, *Understanding Our Unseen Reality*, calls to mind the beginnings of economic and social theory during the Scottish Enlightenment with its emphasis on how our observations rest upon unseen elements of reality, as illustrated by notions of invisible hands. While I do not embrace the importation of ideas from physics willy-nilly into economics, because I think that the humane sciences entail material

that is not reasonably reducible to physics, all the same time I think scholars in different fields can often learn from one another. Where classical physics pertains to observable objects that lie within spacetime, the quantum theories pertain to objects that lie outside spacetime. From this recognition modern social science generally and public choice in particular have much to learn.

During the past century or so, the presumption that there is an unseen reality that undergirds our observations within spacetime's reality has receded into the remote background for most social theorists, no doubt inspired by the development of general equilibrium theory in its Viennese version in the 1930s. With that theoretical development, what was once the province of invisible hands and tacit knowledge became visible through the explicit articulation of general equilibrium theory. Accordingly, economic theory in the late-twenty century bore little resemblance to economic theory in the late-nineteenth century, aside from some formal reference to concepts of utility, demand, supply, and the like. Voting is, of course, an observable phenomenon. Different methods of voting will yield different outcomes when applied to the same set of people. The mental properties of voters, moreover, can likewise be subject to examination, as illustrated by the dichotomy between instrumental and expressive voting which receives fine treatment within these pages.

For instance, is the act of casting a vote a reasonable point of departure for the application of public choice theorizing? Whether or not it is, is something a theorist must decide and with that decision probably depending on just what phenomenon the theorist wants to illuminate. For a conventional economic theory that takes individuals and their preferences as data, there would seem to be no option to treating the casting of a vote as the primitive data from which explanation proceeds.

By contrast, for a socially oriented theory wherein individuals and their values and preferences are shaped by their interactions with one another, the act of voting seems more likely to be socially influenced. If so, electoral outcomes are plausibly generated largely prior to casting a vote, and with the resulting vote being shaped by those social influences. In this setting, voting would be the visible manifestation of below-ground processes of social interaction. I raise this possibility *not* to affirm its correctness in opposition to propositions based on autonomous voters, though I do think that social influences have merit in explaining voting patterns and outcomes. Instead, I raise the possibility of such influences simply to illustrate the point that different theoretical hard cores of unexamined propositions can lead to the construction of different theoretical propositions due to examining that material within different analytical windows (Lakatos 1978).

4 Part III: interest group politics and rent seeking

Interest groups and rent seeking are examined from various conceptual angles in Chapters 23–35 of Volume I. Again, the coverage is comprehensive and clear. Rent seeking and its cousin rent extraction are examined both theoretically and empirically. The operation of interest groups inside political processes is also explored from various angles. Public bureaucracies are one significant though often neglected interest group. The well-explored effort of profit-seeking business to cultivate

regulatory agencies receives fine examination in these chapters. Other chapters explore such significant features as trust, corruption, and persuasion. An instructor seeking to assemble a set of essays on interest groups and rent seeking could not go wrong by creating textual material by selecting among these chapters, depending on which particular topics the instructor desired to cover.

In keeping with the methodological thematic I set forth above, I should also mention that these essays mostly insert interest groups and rent seeking into a prior conceptual setting where they did not exist. That prior setting is the imagined construction of competitive general equilibrium. Within this conceptual framework, the material of political economy and public choice arises through a form of addition where pure economy comes first, with politics added later. The addition of politics, moreover, occurs differently in different conceptual frameworks. Within an orthodox framework of classical liberalism, politics is construed as maintaining the institutional framework necessary to support the market economy of a liberal society. The public choice treatment of interest groups and rent seeking mostly explores incongruencies between classical liberalism and political-economic imperatives. Either way, whether politics supports liberalism or impairs it, politics is added to economics to generate political economy.

The analytical alternative is to recognize that economics and politics are both present at the start, as conveyed by the formulation of entangled political economy that Wagner (2018) sketches. Within this analytical framework, there is no independence of the political and the economic in societies, even though each has realms of autonomous presence. This entangled idea was present at the time of the Classical economists and was carried forward by the economist Frank Knight in 1933 and the political scientist Lasswell (1936). Knight (1933) famously summarized the challenges facing any economic system as being to determine what is produced, how it is produced, and for whom it is produced. The political scientist Lasswell (1936) similarly declared that the central problems of politics are to address questions regarding What, How, and For Whom. Combining Knight and Lasswell arrives at recognition of the entangled nature of systems of political economy. Whether an action is denoted as being political or economic, we may be sure that the actor is seeking to attain states of existence that he or she regards as more desirable than presently experienced states. To be sure, that actor can attain more desired states of existence only by advancing the similar desires of other members of the society. Here, differences can arise in the share of affected parties within the population. For market interactions, the immediately affected parties are those who participate in transactions. For political interactions, we can distinguish between those who choose to participate and those who are forced to participate, and with this difference creating second-order differences of some significance, as can be seen by contrasting the dyadic character of market transactions with the triadic character of political transactions (Podemska-Mikluch and Wagner 2013).

We should remember that market processes are interest group processes. Producers deploy capital to pursue activities that they think will promote *their* activities. Economists readily recognize that insurance is an economically intelligible activity, and the economic organization of insurance conforms to economic principles. Seeking to protect wealth is an intelligible feature of economizing action. That form of

action leads to the market-based formation of insurance companies to organize such protection. But politics is also deeply implicated in the provision of constituent services. Conformity to classical liberal principles might decry the operation of interest groups inside political processes. But not everyone by any means these days adheres to classical liberalism. Politics as a peculiar business can likewise provide insurance, even if that provision differs in significant substantive details from market provision, as Weaver (1982) illuminated lucidly in her examination of the emergence of social security in the United States, as well as in subsequent changes in the program that likewise reflected the operation of the continual and eternal search for gain by those in positions to secure gains.

5 Part IV: normative political theory: evaluating policies and polities

These ten chapters (Chapters 36–45) provide fine coverage of a wide variety of normative topics that have been examined by public choice theorists. Among those topics are fairness and fair division, public choice in relation to libertarianism and to social democracy, alternative approaches to resolving postulated social dilemmas, and the contribution public choice might make to human happiness. As elsewhere within these volumes, a reader of these essays will be escorted to the vicinity of the frontiers of mainstream thinking on these topics. Using these essays as a point of analytical departure for classroom exploration, instructors will be able to explore in depth the various analytical penumbra that encircle those topics.

It is also worth noting that normative theorizing, just as positive theorizing, reflects some hard core of unexamined presuppositions that are taken as data and, moreover, might not reside in the foreground of a theorist's mind, as Lovejoy (1936) examines luminously in *The Great Chain of Being*. There, Lovejoy probes how conscious thinking commonly rests on presuppositions of which the thinker might be only vaguely aware and might even be totally unaware. One of those presuppositions that is common in modern thought since the advent of most versions of Enlightenment thinking is that the present world is but a pale reflection of what humanity is capable of achieving, and with it being the task of enlightened thinkers to show the way forward to a better tomorrow.

To be sure, this Enlightenment pattern of thought speaks with multiple and not a single voice. Standing aside from the bulk of this Enlightenment pattern of thought, Knight (1960) set forth his musings on *Intelligence and Democratic Action*. Knight's volume complemented Friedrich Hayek's well-known exploration into how market processes provide an arena for the assembly of knowledge that is possessed by no single person and yet is essential for general coherence in social economic life. Knight's treatment brings to mind Koppl's (2018) examination of *Expert Failure*, which is also explored in depth in a collection of essays in *Cosmos & Taxis* [6 (no. 5) 2019].

One implication of divided knowledge is that we know much about very few of the matters that are important to our well-being and we know little about most of those matters. Our well-being unavoidably rests on the actions of experts, only there are two classes of way that expertise might be assembled or established. One is by

consensus among users regarding the selection of experts; this is Knight's approach and also Hayek's. The alternative, which dominates today, is to have the selection of experts delegated to political and administrative persons and processes. Central to the divergence which Koppl examines is whether expertise is defined at the system level and then spreads downward through conscious imposition of normative standards or is an emergent quality of human interaction where people are able to adjudicate among the claims of contending experts. With respect to the essays in this part, the distinction concerns whether expertise enables someone to pronounce about norms for the group, akin to the legislative enactment of dictionaries and grammars, or whether expertise resides in emergent standards and conventions, similar to the assembly of dictionaries by lexicographers.

6 Part V: constitutional political economy (vol. 2, new chapter numbering)

The 23 chapters in Part V which opens volume 2 is presented in three sections. Chapters 1–12 examine "The Architecture of Governance." These essays explore numerous substantive dimensions to the organization of governance, and these essays are invariably thoughtfully and carefully constructed in a manner that will enable readers to arrive in the vicinity of the frontier of contemporary theorizing. Within these chapters, readers will encounter such significant topics as forms of representative government, separation and division of governmental powers, bicameralism, federalism, constitutional amendment, the relation between law and politics, and voting rules within the European Union.

Chapters 13–18 cover "The Theory of Dictatorship." Within these chapters, readers are invited to think about the relation between authority and dictatorship, about possible forms of dictatorship, about coups and revolutions, and about Leviathan and the possible connection between democratic forms and concerns about dictatorship. Chapters 19–24 are titled "On the Effects of the Institutions of Governance." These five chapters provide wonderfully clear examinations of public choice thinking about direct democracy, on the significance of political parties, on the place of courts within democratic systems, on differences between parliamentary and presidential systems, and on some of the challenges that efforts to appraise the effects of different constitutional systems must confront.

Recurring again to Lovejoy (1936) and his recognition of how our explicit thinking is often informed by tacit presuppositions of which we might be only vaguely aware, if aware at all, these essays are unified by the presumption that societies are constituted primarily through explicit action as befits standard formulations of rational choice wherein people are construed as making choices after appraising all known options. While I have no objection to this approach to social theory, it is surely worth pondering how such phenomena as tacit knowledge and invisible hands might be incorporated into the constitution of patterns of governance. Also worth pondering is the possibility of large regions of undecidability (Chaitin et al. 2012) in the presence of the combinatorial complexity that arises when a relatively small number of ingredients must be combined from among a large number of options.

Latour (2005) and Epstein (2006) contrast axiomatic or stipulative approaches to social theorizing with generative or constructive approaches. Stipulative approaches are familiar and are reflected in the analogies drawn between playing a game and choosing rules for playing a game. In contrast, generative or constructive approaches treat organized social activity as emerging from pre-social states of existence. Contract-based theories start with social existence by positing conditions that support exchange. Emergent-based theories treat social existence as something that is generated in some fashion; even more, that generation is not some one-shot transformation of anarchy into order but is an on-going process through which social ordering is established and transformed.

This transformation maps onto the political economy of a living constitution, along the lines that Runst and Wagner (2011) set forth. To illustrate their theme of continuing transformation, Runst and Wagner recall Warren's (1932) discussion of the transformation of the general welfare clause of the American Constitution between its inception and the early twentieth century. Originally, the general welfare clause was generally regarded as imposing a limit on the power of Congress to appropriate public revenue, for such appropriation would have to provide general benefits within the nation as distinct from providing benefits for a subset of the population. Warren documents the transformation of the general welfare clause over the following century and a quarter from being a limit on the power of congressional appropriation to Congress morphing into the body that determines what comprises the general welfare. Never was there any change in constitutional wording. To the contrary, this episode illustrates not only the ultimate dependence of constitutional meaning on amassed public sentiment but also points to the significance of social-level theories that wrestle with the assembly and reassembly of social practices. In this context, Rajagopalan and Wagner (2013) explain that claims on behalf of "rule of law" raise the same constructivist questions once it is recognized that "law" can never truly rule, for only people through various structured arrangements can rule.

7 Part VI: applications, extensions, and methodological issues

The final 22 chapters of volume II present a potpourri of topics not covered under any of the other five parts. Chapters 24–30 examine taxation, central banking, redistribution, rational ignorance, common property, and the growth of government. Chapters 31–35 focus on such issues of international political economy as international trade, international organizations, foreign aid, and the exportability of democracy. Chapters 36–39 bring ideas from public choice to bear on some historical topics. There is a chapter on democracy and autocracy in ancient Greece, one on Christianity and public choice, one on the American Constitutional convention, and a piece of intellectual history on some precursors to public choice. Chapters 40–45 close the volume by discussing a variety of topics that touch upon matters of methodology and measurement. These six chapters have a common core in a concern with elections, including experimental work.

In starting this essay, I alluded to how a conceptual focus on averages and masses is useful for addressing some questions, but at the same time it ignores the creative

work that is sometimes done through the transformative activity of outliers. Different theoretical lenses will bring into focus different material for examination. To illustrate, consider a simple variation on Schelling's (1978) oft-cited checkerboard model where he illustrated how strongly segregated patterns of housing could arise despite the presence of but modest racially oriented preferences. Suppose a society of 100 people are distributed on a uniform plain. As a society, these people operate with two rules regarding their proximity to other people. First, they don't move onto an occupied square, as indicating respect for private property. Second, they don't let more than three squares separate them from their nearest neighbor, to give shape to the idea that these 100 people constitute a society. From this point of departure, assume that five of the 100 people change location each period by moving in a generally northwesterly direction. Between any two periods, the mass of people will remain in their same locations and the center of mass of that population will be nearly constant. Yet over time, that society is moving systematically in a northwesterly direction. Even more, that movement is propelled by the five outliers who change location, and who bring the other 95 in their train.

One theorist can reasonably settle on examining the properties of perceived steady states, perhaps emphasizing such things as the inability to reject at the 5 percent level of significance the proposition that the population is stationary. This theorist would reside within the mainstream of public choice theorizing. At the same time, another theorist could focus on exploring processes of evolution and development through time and focus on the properties of outliers and not masses (Gladwell 2018). This theorist would operate outside the mainstream of public choice theorizing by working within a different analytical window. While the views from within the two analytical windows might seem to contradict one another, this would be so only if the law of the excluded middle were embraced. While that window no doubt has arenas of analytical usefulness, that arena is not universal. Such varied concepts as modal logic, fuzzy sets, and yin-and-yang allow in various ways for coherence to exist amid apparent discord. We live inside worlds where reality contains both directly observable phenomena and phenomena that is not directly observable but whose presence might be inferred, though only through the use of some particular theoretical lens.

8 By way of summary

I imagine that only a reviewer would read these 90 essays from start to finish. Aside from reviewers, it is far more likely that most readers will peruse these volumes either looking for summary statements of topics of strong interest to them or looking to bring themselves up to speed on topics about which they have some modest awareness and into which they would like to delve more deeply, perhaps in an effort to determine if they might like to explore this topic more deeply. Either type of reader will find high value in these pages. Those familiar with particular topics will find these essays to summarize nicely current thinking on those topics. Those with modest familiarity who are exploring possible topics for further examination will find these essays to be enormously helpful them to get up to speed with those

topics. The editors are to be congratulated for assembling this marvelous examination of the rich mainstream of what has become public choice since the middle of the twentieth century.

My hearty congratulations to the editors and authors notwithstanding, I would be remiss if I did not remark briefly on the non-mainstream forms of public choice that I sense to lie in the future. These essays are written from an axiomatic or stipulative orientation, as has most of the corpus of modern political economy. We should not forget that our ability to harness our analytical intuitions in the service of analytical coherence depends to some extent on the tools of thought at our disposal. Modern political economy has grown up in a world dominated by axiomatic thinking and closed form modeling where theorists probe their observations by constructing axioms that yield coherence. Pretty much absent from this scheme of thinking is tacit knowledge, invisible hands, spontaneous ordering, and emergent systems where no one can apprehend the entirety of the system inside of which we all live. Theorists, however, are also exploring alternative schemes of thought suitable for understanding the emergence and evolution of complex systems of social order that are not objects of systemic planning, as against myriad instances of relatively local planning occurring inside those systems.

Agent-based computational modeling is one such analytical tool, though any tool can be used to various purposes. Vriend (2002) asks "Was Hayek an ace?" By "ace", Vriend was referring to agent-based computational modeling. While Vriend answered his question affirmatively, he also noted that Hayek could not truly have been an ace because that analytical platform did not exist when Hayek developed his ideas about incomplete and distributed knowledge. To the contrary, Vriend illustrated how Hayek's ideas could be illuminated more fully and accurately within an agent-based context. Similarly, Devereaux and Wagner (2019) explain that many of James Buchanan's ideas are better illuminated through agent-based modeling than closed form modeling, and a similar statement could surely be made about Ostrom (1997), another of the founders of public choice. To be sure, the public choice of the future remains to be written, and these closing musings of mine may remain merely speculation. Until that future arrives, the essays in this *Handbook* will provide wonderful insights into the present state of public choice.

References

Chaitin, G., da Costa, N., & Doria, F. (2012). *Gödel's way: Exploits into an undecidable world*. London: Taylor & Francis.

Devereaux, A. N., & Wagner, R. E. (2019). Emergence, equilibrium, and agent-based modeling: Updating James Buchanan's democratic political economy. In R. E. Wagner (Ed.), *James M. Buchanan: A theorist of political economy and social philosophy* (pp. 109–129). London: Palgrave Macmillan.

Epstein, J. (Ed.). (2006). *Generative Social Science*. Princeton, NJ: Princeton University Press.

Gladwell, M. (2018). *Outliers: The story of success*. Boston: Little, Brown.

Kastner, R. E. (2015). *Understanding our unseen reality: Solving quantum riddles*. London: Imperial College Press.

Klemperer, V. (2006). *The language of the Third Reich*. New York: Continuum.

Knight, F. H. (1933). *The economic organization*. Chicago: University of Chicago Press.

Knight, F. H. (1960). *Intelligence and democratic action*. Cambridge, MA: Harvard University Press.

Koppl, R. (2018). *Expert failure*. Cambridge: Cambridge University Press.
Lakatos, I. (1978). *The methodology of scientific research programs*. Cambridge: Cambridge University Press.
Lasswell, H. D. (1936). *Politics: Who gets what, when, how*. New York: McGraw-Hill.
Latour, B. (2005). *Reassembling the social: An introduction to actor-network theory*. Oxford: Oxford University Press.
Lovejoy, A. (1936). *The great chain of being*. Cambridge, MA: Harvard University Press.
Ostrom, V. (1997). *The meaning of democracy and the vulnerability of democracies*. Ann Arbor: University of Michigan Press.
Podemska-Mikluch, M., & Wagner, R. E. (2013). Dyads, triads, and the theory of exchange: Between liberty and coercion. *Review of Austrian Economics, 26,* 171–182.
Rajagopalan, S., & Wagner, R. E. (2013). Constitutional craftsmanship and the rule of law. *Constitutional Political Economy, 24,* 295–309.
Runst, P., & Wagner, R. E. (2011). Choice, emergence, and constitutional process. *Journal of Institutional Economics, 7,* 131–145.
Schelling, T. C. (1978). *Micromotives and Macrobehavior*. New York: Norton.
Vriend, N. (2002). Was Hayek an ace? *Southern Economic Journal, 68,* 811–840.
Wagner, R. E. (2018). *Politics as a peculiar business: Insights from a theory of entangled political economy*. Cheltenham: Edward Elgar.
Warren, C. O. (1932). *Congress as Santa Claus*. Charlottesville, VA: Michie.
Weaver, C. L. (1982). *The crisis in social security: Economic and political origins*. Durham, NC: Duke University Press.