privatization, and offers us a litany of examples of privatization gone wrong. The odd thing about this is that the evidence could be used more effectively to build a case against the government than for it; i.e., the government is so bad that it can even screw up a privatization program.

Quiggin is something of a puzzle. He is a microeconomist who has done research in decision theory. He seems to approve of the use of standard economic theory, involving models of rational economic agents solving standard decision problems, for analyzing what the government should and should not own. But the same economies where governments have to decide what they should own are the ones where governments have to determine what to do in response to a financial crisis. Yet Quiggin thinks that we need fundamentally different tools for addressing the latter "macro" problem as opposed to the former "micro" one. Why?

Conclusion

Why do some people believe that modern macroeconomics is a tool of the right wing? Why do some people have a dim view of economists, and of macroeconomists in particular? People like to have scapegoats, and they seem to enjoy imagining conspiracies. Some writers are very happy to make a healthy income supplying and propagating these myths. The myths refuse to die, just as this book, which is now on many shelves, refuses to die. The zombie walks.

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D Microeconomics

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Introduction and Motivation[1]

In *Policy and Choice: Public Finance Through the Lens of Behavioral Economics*, William J. Congdon, Jeffrey R. Kling, and Sendhil Mullainathan explore the implications of findings from psychology and economics for public finance. In doing so, they seek to shed light on several core questions in the field. For example, does government-provided health care crowd out private health care when individuals have self-control problems? Do higher taxes reduce labor supply when individuals do not perceive taxes correctly? How should economists' prescriptions for optimal government tax and transfer policies change in view of evidence that individuals are not fully rational?

More broadly, the aim of this book is to provide a unified analytical framework for "behavioral public finance" (see "The Promise" on page 1). It seeks to accomplish this objective in two ways. First, the book revisits many of the classic results in public finance that are based on the standard model of choice, and considers the robustness of these results to an alternative model of behavior that grounds the standard model on more realistic psychological foundations.[2] Second, the book argues that by starting with a model of behavior that rests on more realistic psychological foundations, policymakers may be able to rely on an expanded toolkit of policy instruments. For example, psychological evidence

[1] I would like to thank Raj Chetty, Stefano DellaVigna, Constanca Esteves-Sorenson, Amanda Kowalski, and Matthew J. Notowidigdo for providing extremely helpful comments and feedback on this review.

[2] Throughout, I will refer to the standard model as one in which individuals have stable and well-defined preferences represented by a utility function and they maximize utility.

shows that individuals exhibit a status-quo bias; as such, studies find that behavior is very sensitive to default options. A policy of automatic or active enrollment may help to facilitate better consumer choice, thereby raising *individual* welfare.

I will argue that the book succeeds along several dimensions. First, it crystallizes some of the implicit assumptions that underlie classic market failures, such as adverse selection and externalities, and shows that these assumptions may not hold if individuals do not behave as in the standard model. This is important since it presumably changes the inferences that economists should draw about whether a market failure exists, and thus, whether there is scope for government intervention in a particular situation. Second, it identifies areas where behavioral errors could justify nonstandard policies or "nudges" (Richard H. Thaler and Cass R. Sunstein 2008) that affect behavior through channels other than information or budget constraints. Importantly, Congdon, Kling, and Mullainathan are careful to emphasize that the social welfare implications of nudges are not obvious. This is demonstrated by the following two examples. First, standard public finance teaches us that creating a barrier to claiming public benefits may be desirable on efficiency grounds since it ensures that only the truly needy will take them up (Albert L. Nichols and Richard J. Zeckhauser 1982). A nudge that reduces such a barrier may improve choice and welfare if some of the nonparticipants are not those who value the benefits the least, but rather are those who are prone to behavioral tendencies; yet this policy still needs to be evaluated against the more traditional role of barriers as a useful screening mechanism. Second, in markets that are subject to informational problems such as adverse selection, in general equilibrium, nudges may exacerbate the market failure and lower social welfare (Benjamin Handel 2010). Thus, to evaluate the desirability of a nonstandard policy, Congdon, Kling, and Mullainathan emphasize the need to consider the interaction between individual failures and market failures.

In general, the book is very effective in showing how policy prescriptions can be improved using insights from psychology. As such, it moves the field closer to having a unified framework for behavioral public finance. What are the hallmarks of a unified framework? To shed light on this question, it is instructive to consider why the standard approach to public finance, based on the principle of revealed preference, constitutes a unified framework. First, it clearly delineates the situations where there is scope for government intervention. Second, when markets fail, it offers a clear set of policy tools that can increase social welfare. Third, it is capable of prescribing a sharp set of policy recommendations for the design of taxation and social insurance programs. For example, optimal taxation theory has been used both to characterize the pattern of optimal income taxes and suggest avenues for tax reform (Peter Diamond and Emmanuel Saez forthcoming). These practical considerations make the standard approach very appealing to economists.

The standard approach is very useful for policy analysis since it is capable of jointly describing the effects of a policy on behavior and evaluating the effects on welfare. A behavioral approach, on the other hand, has to come to grips with the fact that observed choices do not necessarily reveal "true" preferences. In this circumstance, it is very difficult to judge whether a particular policy harms an individual or makes him better off, since it is not clear a priori how to evaluate how a change in behavior in response to a policy affects utility.

Of course, if the empirical evidence is inconsistent with the standard model, it makes little sense to justify it on the basis that it is easier to do policy evaluation. Moreover, to the extent that economists are interested in conducting purely positive analyses, there seems to be only the added benefit of making the model more realistic. In fact, in some instances, it may be simple to generalize the standard model by adding a single parameter. For instance, Raj Chetty, Adam Looney, and Kory Kroft (2009) add one extra parameter to the standard model that can be interpreted as the degree of tax misperception and show that the generalized model is consistent with the observed behavioral response to taxation and gives rise to very different implications for tax incidence analysis. What is potentially lost is the ability to generate welfare implications, although Chetty, Looney, and Kroft propose a normative framework that can be used to evaluate the efficiency cost of taxation.

There are two different approaches to a behavioral welfare analysis. The first, which is closest to the traditional revealed preference approach, comes from B. Douglas Bernheim and Antonio Rangel (2009). Bernheim and Rangel provide a choice-theoretic welfare analysis that allows for many of the deviations from the standard model discussed in this book.[3] In particular, it does not require the analyst to specify a positive model for the deviation; rather, it only requires observed choices to make statements about welfare. Since the welfare analysis is robust to specifications of the positive model underlying observed choices, it is in the spirit of the "sufficient statistics" approach (Chetty 2009). The second approach requires economists to build a psychological model of decision making and evaluate welfare in this model. The advantage of this more model-based approach relative to Bernheim and Rangel's sufficient statistics approach is that it is able to make sharper policy prescriptions because it is more precise about microfoundations. The disadvantage is that it typically requires the adoption of an arbitrary welfare criterion to evaluate policies. Congdon, Kling, and Mullainathan advocate an approach to welfare analysis that comes closest to the second approach, although they allude to the Bernheim and Rangel approach on various occasions throughout the book. There are trade-offs to both approaches, which I will discuss in more detail below.

Organization of the Book

Part 1 of the book, consisting of chapters 2 and 3, presents three classes of deviations from the standard model (chapter 2), and discusses the general principles that emerge when integrated with public finance (chapter 3). These general principles are then applied in part 2. Chapter 4 covers asymmetric information, chapter 5 addresses externalities and public goods, chapter 6 covers poverty and inequality, and chapter 7 examines taxation and revenue.

[3] For instance, individuals cannot attend to all features of their choice environment and are particularly influenced by salient features; individuals have trouble making a choice when the choice set they face is large; individuals exhibit preference reversals due to framing effects, and so on.

Taxonomy of Deviations From the Standard Model

In chapter 2, Congdon, Kling, and Mullainathan group deviations from the standard model into three categories: (1) imperfect optimization caused by shortcomings due to limited attention and computational capacity and biased reasoning, (2) bounded self-control, which focuses on time-inconsistency; in particular, the discrepancy between planning and implementation due to procrastination and other behavioral tendencies, and (3) nonstandard preferences due to reference dependence or other-regarding preferences.

While this organization broadly relates to others found in the psychology and economics literature, there are differences. Matthew Rabin (1998) conceptualizes heuristics and biases as a single category of deviations and assigns framing effects and self-control problems to a separate category. Rabin points out that individuals may hold biased beliefs, but nevertheless attempt to maximize utility. On the other hand, Rabin argues that framing effects may be more than merely some obstacle individuals must overcome in an attempt to maximize utility; rather, the particular framing of a choice environment may affect welfare directly. For instance, an individual's preference for a fair outcome depends on whether wage cuts are presented in nominal or real terms (Daniel Kahneman, Jack L. Knetsch, and Thaler 1986). The class of deviations presented in Bernheim and Rangel (2005), Bernheim (2008) and Stefano DellaVigna (2009) consider the possibility that self-control may fall under nonstandard preferences. It is also noteworthy that not included among this set are "nonpsychological" models of bounded rationality (Herbert A. Simon 1955; John Conlisk 1996; Xavier Gabaix et al. 2006). Congdon, Kling, and Mullainathan take a particular stance that behavior is prone to biases, mistakes and errors, which is to be contrasted with models of bounded rationality.

Sometimes the differences in classification schemes simply amount to different labeling conventions; other times, the differences have significant normative implications. For instance, one theory of self-control, falling under nonstandard preferences, posits that utility depends on both allocations and choice sets (Faruk Gul and

Wolfgang Pesendorfer 2001). In this case, there is no conflict between preference and choice and one can apply the principle of revealed preference to recover preferences from choice data, under some identifying assumptions.[4] An alternative theory of self-control is the multiple-self model where an individual at a given point in time can be conceptualized as a different self, endowed with a different set of preferences (David Laibson 1997; Ted O'Donoghue and Rabin 1999, 2001). Under this theory, there is a conflict between choice and preference and the normative criteria must specify how to aggregate preferences at each point in time. Congdon, Kling, and Mullainathan focus primarily on the multiple-self model; in terms of normative criteria, they call on economists to provide policymakers with a mapping of welfare weights to policy prescriptions.

Before proceeding, it is worth mentioning two caveats. First, although there now exist a number of empirical studies that can be considered to belong to the domain of behavioral public finance, many of the deviations covered in chapter 2 have not formally been tested directly in a public finance setting. For instance, much of the discussion surrounding unemployment insurance policy in chapter 4, in particular wage loss insurance, is premised on individuals having reference dependent preferences. Yet I am not aware of any empirical studies that test for reference dependence in the context of unemployment. Second, nudges may not always be effective policy levers to change behavior at the margin. A recent field experiment found evidence that the amount of federal tax refunds that low-income households allocated to U.S. Savings Bonds did not vary with the default option (Erin Todd Bronchetti et al. 2011).

A New Framework for Public Finance

In chapter 3, Congdon, Kling, and Mullainathan revisit many of the classic topics in public finance through the lens of their behavioral framework. In doing so, they structure their discussion around the standard organizing framework of public finance: (1) understanding the motivation for government intervention ("diagnosing policy problems"), (2) understanding the efficiency costs of government policies ("judging policy objectives"), and (3) understanding features of optimal taxation and social insurance design ("prescribing policy responses"). In each case, Congdon, Kling, and Mullainathan identify a set of principles that emerge when their behavioral framework is applied to public finance.

Diagnosing Policy Problems

Congdon, Kling, and Mullainathan highlight that behavioral tendencies alter standard analyses of market failures and present new challenges. First, the underlying conditions that give rise to market failures may not hold when individuals have behavioral tendencies. For instance, the mere existence of asymmetric information need not imply adverse selection if individuals do not act on their private information due to imperfect optimization or bounded self-control. This may extend to externalities and public goods as well. For example, even though smoking by parents at home has a negative externality on children, parents may internalize this externality if they have other-regarding preferences towards their children. While in these cases, behavioral tendencies lower the welfare cost of market failures, in other cases, they could make them greater. For example, the lack of saliency of energy pricing plans may lead to overconsumption of energy, relative to what the level of consumption that would be chosen under the standard model.[5]

Second, behavioral tendencies have implications for optimal government policies that are a response to market failures. As is well known, a government policy that tries to correct a market failure may generate a new set of distortions. For example, government-provided health insurance increases welfare by providing risk protection in

[4] Botond Kőszegi and Rabin (2008) eloquently argue that when well-being depends on choice sets, one can recover well-being from choice data, only with additional ancillary assumptions. In a number of important cases, they argue that such assumptions are not obvious and call for nonchoice data, such as happiness measures, to reveal well-being.

[5] In this case, a novel policy response could be the adoption of smart meter technologies allowing consumers to better understand how energy consumption maps into energy costs in real time (Hunt Allcott 2009).

the absence of private insurance arrangements, but it also leads to offsetting welfare losses due to moral hazard (Mark V. Pauly 1968). In analyses of optimal social insurance, this moral hazard cost leads to less than full insurance. Congdon, Kling, and Mullainathan argue that, in some cases, behavioral tendencies offset the moral hazard cost of social insurance. For example, individuals with bounded self-control are less prone to consuming "excess" health care in response to a reduction in the price of health benefits. In other cases, the moral hazard cost of government policies may be exacerbated by behavioral tendencies. For instance, if workers procrastinate while searching for a job, the distortionary effect of generous unemployment insurance benefits on job search may be amplified.

Third, behavioral tendencies generate "individual failures," providing a new rationale for government intervention. For example, social security—traditionally perceived as being a response to asymmetric information in the private annuity market for longevity risk—may also be motivated by a desire to overcome self-control problems and increase savings for consumption during retirement. Adopting a behavioral perspective may also give rise to a new set of externalities. For example, smoking or eating junk food in the presence of agents with bounded self-control might impose a negative "willpower externality" on them. In terms of nonstandard preferences, if individual utility depends on relative consumption, there may be negative "positional externalities" (Robert H. Frank 2005).

Finally, behavioral tendencies change how we think about redistribution and inequality. If *individual* utility depends on the welfare of others, this may generate an additional motivation for redistribution, although one needs to take into account the fact that such preferences also imply a greater willingness to voluntarily donate.

To summarize, this section of the book is very useful in suggesting the ways in which a standard approach to public finance might be misleading and identifying innovative policy instruments. However, there remain several challenges for an alternative unified framework for public finance. Consider the discussion on the public provision of public goods in chapter 5. Congdon, Kling, and Mullainathan point out that several predictions of the standard model of public goods are inconsistent with the data. Most notably, empirical studies find that public provision of public goods does not crowd out private provision one-for-one. This finding is generally interpreted through the lens of the "warm glow" model (James Andreoni 1990), which posits that individuals care not only about the level of the public good, but also their contribution to the public good. This model has the ability to rationalize other findings in the literature, and is thus viewed as a useful positive model of behavior (Diamond 2006). A difficult issue in this literature has been identifying the psychological mechanism that gives rise to warm glow. According to Bernheim and Rangel (2005), this matters since different mechanisms have significantly different welfare implications. In fact, both Andreoni (2004) and Diamond (2006) advocate using the standard model for welfare analysis, since they argue that economists will likely be unable to identify the correct positive model of warm glow. Congdon, Kling, and Mullainathan note that a behavioral approach permitting individuals to hold other-regarding preferences could alter the optimal level of public goods. However there remains the thorny issue of how to actually conduct normative analysis in a public goods setting, using such an alternative framework.

Judging Policy Objectives

Congdon, Kling, and Mullainathan emphasize that a behavioral perspective alters the trade-offs of policies. In the case of taxation, the standard method of using price elasticities as a sufficient statistic for the welfare cost and incidence of tax policies may fail when individuals imperfectly optimize. In particular, the lack of a behavioral response to a tax may have more to do with limited attention than with a low price elasticity of demand (Chetty, Looney, and Kroft 2009). Congdon, Kling, and Mullainathan convincingly argue that the welfare implications of policies in general depend crucially on the context in which behavioral responses are estimated; for instance, whether a tax is included in the posted price. Holding economic incentives fixed, different contexts and factors influencing the presentation of these incentives, such as salience, can give rise to very different behavioral responses. A major task

for economists will be in figuring out which contextual factors influence behavioral responses. A number of papers have already begun to explore the role of contextual and social factors on behavioral responses (see Esther Duflo and Saez 2003, Catherine C. Eckel and Philip J. Grossman 2003, Duflo et al. 2006, Kelly S. Gallagher and Erich Muehlegger 2008, Chetty and Saez 2009, and Amy Finkelstein 2009).

A behavioral perspective presents an important new challenge for normative analysis when individuals deviate from full optimization. Congdon, Kling, and Mullainathan advocate an approach that takes a particular stance on the nature of the deviation from the standard model. Under their approach, economists should build a psychological model for the deviation. In some circumstances, this gives rise to multiple preferences. As such, conducting a normative analysis requires specifying a welfare criterion. As an illustration, consider the model of quasi-hyperbolic discounting. In this model, two criteria for normative analysis have been proposed: the *Pareto* criterion (Laibson 1997) and the *long-run utility* criterion (O'Donoghue and Rabin 1999). Under the Pareto criterion, a policy increases welfare if each self is made at least as well off. While most economists accept the Pareto criterion, it has the drawback that in practice, it is difficult to find a policy that satisfies it. A weaker criterion is to assign a weight to each self and form a welfare function by aggregating preferences across selves. One then evaluates optimal policy for alternative representations of this "intrapersonal welfare function."[6] Finally, under the long-run criterion, a policy increases welfare if it were to increase the utility of an agent who discounts the future exponentially.[7]

Congdon, Kling, and Mullainathan do not view the role of the public finance economist as involving choosing among various welfare criteria. Instead, they see this as the policymaker's choice and argue that economists should only be concerned with providing the mapping from properties of the welfare function to policy prescriptions. Under their approach, economists must clarify the intrapersonal trade-offs created by policies, and highlight how behavioral tendencies affect these trade-offs. The onus is then on the policymaker to specify the welfare function. Their approach can be summed up with the following passage:

> The policy judgments introduced by behavioral economics in this case involve setting policy in ways that resolve intrapersonal conflicts. Policy must reflect, for example, judgments about distinguishing what look like choice errors from what are simply unusual preferences. Similarly, policy must also reflect judgments about how to balance competing short- and long-run interests when individuals exhibit what appear to be time-inconsistent preferences. And policy must finally reflect judgments about how to balance the varying preferences that might be revealed when choice is otherwise inconsistent, as it can be due to reference-dependence or framing effects (p. 57).

There are several difficult conceptual issues that arise with Congdon, Kling, and Mullainathan's approach to welfare analysis. First, how can a policymaker decide whether choices and preferences diverge given that economists have a very hard time making this distinction? This assessment presumably requires nonchoice data, since as Congdon, Kling, and Mullainathan point out, observed choice may be rationalizable by positing unusual preferences. Therefore, this approach challenges economists to come up with a set of principles to guide policymakers in using nonchoice data.[8]

Related to the first point, if there are multiple positive models which can rationalize behavior, and each model implies a different welfare criterion, how can a policymaker carry out normative analysis? Bernheim (2008) describes six models of time-inconsistent preferences that

[6] See Ayse İmrohoroğlu, Selahattin İmrohoroğlu, and Douglas H. Joines (2003) for such an approach.

[7] See M. Daniele Paserman (2008) and Hanming Fang and Dan Silverman (2009) for examples of studies in the literature adopting the long-run utility criterion.

[8] For example, in suggesting new policies like wage-loss insurance, Congdon, Kling, and Mullainathan note that a policy evaluation of wage-loss insurance might want to test for the importance of behavioral tendencies. It is hard to evaluate this proposal without a normative criterion.

are observationally equivalent, yet each theory has different welfare implications. While it may be possible to discriminate among these models using non-choice data, it is not immediately clear what Congdon, Kling, and Mullainathan are advocating in these situations.

Third, there is the paternalism critique. Even if choices and preferences diverge, policymakers may suffer from their own set of biases and may not be up to the task of making judgments about whether a particular policy improves social welfare (Edward L. Glaeser 2005).

Congdon, Kling, and Mullainathan's structural approach contrasts with Bernheim and Rangel's sufficient statistics approach, which does not require policymakers to know when preferences and choice diverge since it does not require a rationalization of choice; as such, it avoids some of the aforementioned difficulties. While the advantage of Bernheim and Rangel's approach is that it places fewer demands on the policymaker, one potential problem is that it can only identify bounds on welfare and these bounds may be large if behavioral errors are important. These bounds can be tightened through the use of refinements, but such refinements typically require non-choice data. In some cases, refinements are possible based on choice data alone. For example, Chetty, Looney, and Kroft (2009) impose the refinement that choice reveals true preferences when taxes are salient because they are included in the posted price. This of course imposes strong assumptions on the class of models that are permitted. As such, this should not be viewed as a substitute for research that identifies the structural reasons why individuals misperceive taxes. Work that builds on this may provide a path to a more unified approach to behavioral public finance down the road that can integrate the various interesting observations in this book.

Prescribing Policy Responses

Congdon, Kling, and Mullainathan caution that behavioral tendencies may alter standard policy prescriptions. For instance, if individuals misperceive prices, the standard method of using prices as corrective measures (e.g., Pigouvian taxes) are made less effective. In the case of transfers that are targeted to the poor, the use of screening methods may fail to be effective if the individuals screened out are the most needy. Lastly, markets created by policy, as in the case of school choice or Medicare prescription drug benefit, may not possess the desirable efficiency properties if market participants fail to optimize (Justine S. Hastings and Jeffrey M. Weinstein 2008; Jason Abaluck and Jonathan Gruber 2011).

Congdon, Kling, and Mullainathan also offer an interesting discussion of several nonstandard policies that have impacted behavior in various settings. Nudges, such as automatic and active enrollment in retirement savings plans, can overcome the tendency to stick with defaults (Brigitte C. Madrian and Dennis F. Shea 2001). Additionally, the opportunity to designate future pay raises to a savings account can be an effective commitment device (Thaler and Benartzi 2004).

Congdon, Kling, and Mullainathan extrapolate such policy lessons from these contexts to several others. They suggest that policymakers might want to use automatic enrollment to increase precautionary savings in the event of an unemployment spell and encourage enrollment in employer-sponsored health insurance plans and public health insurance programs like Medicaid and/or SCHIP. In some cases, like enrollment in Medicaid or SCHIP, they argue that this could work through the tax filing process since tax returns contain information on eligibility criteria. This builds on research showing that the tax filing process helps with the college financial aid process (Eric P. Bettinger et al. 2009) and also understand the complex incentives of the EITC (Chetty and Saez 2009).

The public finance literature is only recently beginning to consider behavioral welfare economics and there exist few theoretical explorations of optimal policy with behavioral agents. Whether and how policies, such as nudges, affect social welfare is still largely unresolved in the literature. On the surface, nudges seem quite attractive from a policy standpoint since they appear to have a first-order effect on behavior, while having only a second-order effect on government expenditures. Clearly, an important task for public finance economists is to move beyond the design of traditional policy instruments, such

as taxes and social insurance benefits, and study the optimal design of nonstandard policies more systematically.

Conclusion

Congdon, Kling, and Mullainathan have drawn on their collective expertise in their respective areas to develop an impressive set of core ideas for behavioral public finance. Their book is really the first attempt at organizing findings from psychology and economics while, at the same time, carefully considering their implications for public finance. As such, this book provides an enormous public service to the profession.

A book with this ambitious agenda is likely to garner its supporters as well as its critics. Readers with an interest in public finance topics who lack the background in psychology and economics will find much to like in the review of the concepts and associated empirical evidence. This work is also extremely valuable since it identifies future topics in behavioral public finance that are worth exploring. For example, in the case of setting optimal defaults, one presumably wants to take into account heterogeneity in risk preferences. Formalizing this idea seems to be a worthwhile future research topic. One of the more productive applications of behavioral economics may be to the study of poverty. If willpower is a finite resource, conditions of poverty can interact with behavioral tendencies to generate unfavorable consequences (Lisa Gennetian, Mullainathan, and Eldar Shafir forthcoming).

Given the different approaches to welfare analysis that have emerged recently in the literature, others may find the particular approach advocated by the authors dissatisfying. For example, how should a policymaker distinguish between individuals making mistakes and individuals having unusual preferences? Although Congdon, Kling, and Mullainathan see it as the role of policymakers to make this distinction, they do not provide a user guide and instead outsource this task to the field of political economy. This strikes me as one of the more difficult aspects of the book. On the other hand, if individuals do in fact have multiple preferences and so observed choices do not reveal "true" welfare, then a revealed preference approach is also difficult to justify.

In general, my sense is that the reader will come away feeling that the book is tremendously useful in suggesting ways in which a standard approach to public finance might be misleading and identifying innovative policy instruments. How successful is the book in delivering a unified alternative framework for public finance? While the book significantly advances our understanding of how and why behavioral economics matters for policy, a lot of work remains to be done. The book calls for much more empirical research examining whether and how behavioral tendencies matter in public finance settings. To the extent that they do, the next step is to more systematically explore the design issues carefully considered and outlined in the book.

Lastly, the book will be of interest to students in both undergraduate and graduate public finance courses. The book can usefully serve as a warning guide for those looking to heedlessly apply the lessons and insights of standard public finance. It will also be of interest to general practitioners of public finance and academic researchers who want to understand behavioral economics and the implications for taxation and expenditure policies.

On the psychology and economics side, the book is not a substitute for review articles by Rabin (1998) and DellaVigna (2009), but readers will be able to get a very nice overview for many of the key findings in the literature. Finally, for readers outside of public finance, the book requires a cursory knowledge of the main issues in public finance. It is nontechnical and I presume that most economists and practitioners will be able to pick up the book and read it without too much difficulty. In my view, it is thoroughly enjoyable to read and will serve as an excellent investment.

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Individuals and Identity in Economics. By John B. Davis. Cambridge and New York: Cambridge University Press, 2011. Pp. x, 260. $90.00, cloth; $32.99, paper. ISBN 978–1–107–00192–3, cloth; 978–0–521–17353–7, pbk.
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The book, *Individuals and Identity in Economics*, by John Davis is the follow-up to Davis's previous work, *The Theory of the Individual in Economics* on the critical role and definition of the individual in economic thought. Beyond analyzing a conception of the individual as a collection of preferences, Davis seeks to resolve notions of atomistic, self-contained individuals with both post–World War II game theory and modern behavioral economics. The result is a well-developed, carefully constructed treatment giving food for thought for those interested in the philosophy of economics and the conception of the individual.

The treatment evolves in three broad stages. In the first, notions of atomism in individual decision making and individuation are revisited. Davis presents a view that economics initially posited an atomistic individual, defined around his or her own collection of self-interested preferences. This self-contained, stationary egoistic view of the self provided coherent structure for understanding the individual. An individual could be represented by a utility function, itself a construct of a well-behaved preference relation, itself an as-if representation of a choice correspondence. Psychology broadly, and particular elements adopted by behavioral economists, challenged this stationary atomistic view. What must one make of phenomena such as dynamically inconsistent preferences if individuals are so statically defined? Davis adopts the view that the definition of individual as atomistic must be incomplete. A dynamically inconsistent decision-maker, by the development of the argument, is an example of multiple, nonatomistic selves, interacting within an individual. Of course, one can model such behavior as arising from a single decision-maker, but multiple selves clearly presents a problem for analysis one may be interested in such as making welfare statements favoring one self over another. Davis hints at a broad issue in behavioral economics—that it is potentially unclear whose preference ranking to favor in multiple-selved situations. Another situation highlighted by Davis is the placement of the utility of others in the utility function. He points to an implicit definition of the individual as being both self and other-regarding. Hence the individual cannot be atomistic if he is multiple, socially selved.

The second broad theme concerns strategic interaction. Making allusion to fixed point theorems in game theory, Davis notes that postwar study of strategic interaction has focused often on equilibrium notions of behavior. Hence, in the author's view, individuals are defined by the rationality requirements of equilibrium. Interaction becomes part and parcel of the definition of an individual. Davis suggests that this muddies the waters of individualism as in indefinitely repeated games many outcomes are possible, from one-sided to mutually beneficial given the multiplicity of equilibria. Davis points to experiments in game theory where "what individuals are depends on how their interaction was designed" (p. 109).

The third theme links individuality to evolutionary forces, the economics of identity, and policy questions. Davis begins by suggesting that individuals, the market systems they face, and the nature of their interpersonal interactions coevolve. Given this coevolution, how then can one understand individuals evolutionarily?