12 Poverty Relief as a Rule-Based Discovery Procedure

Is Universal Basic Income Compatible with a Hayekian Welfare State?

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Introduction

What does effective poverty relief entail? How are we to assess the capacity of advanced industrialized societies to solve the problem of poverty? What role, if any, is left for the welfare state? This chapter argues that poverty relief, far from being primarily a matter of post hoc redistribution, primarily consists in a Hayekian-Schumpeterian discovery-innovation procedure whereby the problems of the poor are continuously discovered, identified, and eventually solved from the bottom up. This suggests new avenues for reform. 1 I argue, from the point of view of complexity theory, that governments must overcome knowledge and governance problems that limit their competence in the realm of solving the problems of the poor. As a result, any efficient system of poverty relief is unlikely to emerge from imposing an efficient and equitable top-down delivery of given goods and services based on established practices or preferences. The knowledge of what goods and services are required, and what practices should be modified to produce them, is not given to policy makers; it needs to be discovered. And this discovery is best modeled as an entrepreneurial, inquisitive, and experimental process. In this analysis, I apply the branch of complexity theory that resonates strongly with the Austrian epistemic paradigm (Hayek 1945, [1960] 2001, 1967, 1982; Kirzner 1973, 1997; Lavoie 1985; Pennington 2011) and, in particular, the fecund concept of permissionless innovation (Thierer 2014; Munger 2018).

My subsequent analysis, therefore, approaches contemporary complexity theory through the normative lens of classical liberal institutional rules that are tasked with facilitating the spontaneous order of complex adaptation and limiting the excessive power of the state. The most important post-Hayekian philosophical foundations for that project have been laid down by Gerald Gaus (2016, 2018, 2021). These Hayekian or Gaussian themes of the governance of complexity in a diverse world can be fruitfully explored through the joint institutional insights of three influential schools of contemporary evolutionary economics: the aforementioned neo-Austrian or neo-Hayekian school, the Santa Fe school (for example, Holland 1992), and the neo-Schumpeterian school (Schumpeter [1942] 2008; Nelson and Winter 1982). The shared insights of these three schools lay the foundation for my subsequent thinking about economics and public policy from the point of view of complex adaptation and

DOI: 10.4324/9781003404026-17

permissionless innovation. Together, these three mutually reinforcing approaches give us the integrative analytical tools to analyze the complex evolutionary challenges faced by welfare states (and their citizens) when they approach the difficult question of public policy reform, institutional design, and constitutional overhaul. These approaches highlight the policy relevance of thinking about the economy as an *ecosystem* that prioritizes the system-level nurturing of *bottom-up innovation* as a tool for achieving *complex adaptation*. Such a framework fits with the broader complexity perspective that traverses ideological and methodological boundaries; but it is *predominantly* classical liberal, even somewhat libertarian, in its heavy emphasis on the epistemic case for liberty that acknowledges a legitimate role for redistribution but speaks against excessive government interference in society.

From this complexity point of view, I argue that the appropriate goal of welfare policy is to fumble in the dark—long enough and creatively enough—to be able to answer the questions: What do poor people want? And how should it be given to them? This suggests the prima facie superiority of regulatory rules and policies favoring entrepreneurial innovation. Therefore, I propose to highlight, first, the importance of the liberal regime of abstract and general rights, especially private property rights and the rule of law, in facilitating entrepreneurial and cultural innovations to solve the problems of the poor and disadvantaged members of society and, second, the productive role that government can play in setting up the rules of the game. The role of redistribution, while important, is relegated to a secondary position that can supplement the self-adjusting, decentralized, and multilevel processes of poverty relief taking place under the regime of liberal rights. However, this does not mean that the role of the government is necessarily small. Indeed, I argue that this framework is potentially compatible, at least in some circumstances, with institutionalized social insurance and perhaps with an extended array of government support mechanisms. If a tax-and-transfer scheme is to be devised, the analysis suggests the relative superiority of unconditional cash transfer and basic income programs (Friedman 1962; Hayek 1982; Brennan and Buchanan [1985] 2000; Buchanan 1997; Buchanan and Congleton [1998] 2001; Zwolinski 2015, 2019; Lehto and Meadowcroft 2020; Lehto 2021, 2022) since such programs seem to be more compatible with the liberal regime of entrepreneurial innovation than the existing panoply of conditional welfare measures that tend to discourage bottom-up experimentation and private initiative. I, therefore, explore the theoretical feasibility (or lack thereof) of a universal basic income (UBI) from the point of view of evolutionary economics and the challenges of complex adaptation. I argue that a complex adaptive UBI scheme (one that supports or minimally hinders complex adaptation) is theoretically compatible with the complexity model of political economy if and only if it is placed within broader evolution-guiding—or ecostructural—institutional rules (Colander and Kupers 2014). I show that the classical liberal (Hayekian-Humean) rule-of-law framework offers ways of assessing and modifying the evolution-guiding rules of redistribution. However, whether UBI can be recommended as a socioeconomic discovery and learning procedure depends on a careful analysis of its various negative and positive effects. The theoretical promise of UBI needs to be tested against real-world robustness criteria that

determine the overall normative desirability and institutional feasibility of any social-insurance scheme (De Wispelaere and Stirton 2012; Boettke and Martin 2012). Whether the benefits outweigh the costs is far from obvious.

The structure of the chapter is as follows: In section 2, I explain the complexity approach to public policy. Then, in section 3, I analyze the pros and cons of a Hayekian UBI. Finally, in section 4, I conclude.

The Complexity Approach to Public Policy

What Are the Policy Implications of Evolutionary Economics?

Based on my reading of the policy implications of the neo-Austrian, neo-Schumpeterian, and Santa Fe schools of evolutionary economics, the complex adaptive process of socioeconomic interaction is seen as an *evolutionary discovery procedure* that takes advantage of the bottom-up experiments and network learning of millions of individuals, families, and economic units. Agents are seen as interacting under constantly changing circumstances—that is, radical uncertainty—to undertake permissionless innovations, thus giving birth to unintended discovery mechanisms for social improvement. The public policy implication is that the government, aside from its other core functions, should set up an institutional framework that encourages bottom-up permissionless innovation and experimentation. In short, under the complexity-governance framework, policy entrepreneurs should aim to facilitate complex adaptation by designing appropriate institutional (ecostructural) rules within which agents can self-organize from the bottom up and thereby produce permissionless innovation.

Before proceeding, let me define some key technical terms:

Complex adaptation: (1) The capacity or propensity of a complex system to spontaneously order and coordinate the various actions of its heterogeneous and autonomous agents (ideally toward mutually beneficial, or long-term welfare-enhancing, outcomes). (2) The resulting socioeconomic process of evolutionary development characterized by innovations, disequilibria, system shocks, and radical uncertainty.

Permissionless innovation: The emergent capacity or propensity of a complex adaptive system (especially a classical liberal one) to generate bottom-up experimental solutions to the challenges of evolutionary learning without having to appeal to the epistemic or discretionary standards of centralized decision-making bodies.

To illustrate, let me look at two important books in the contemporary evolutionary-economics literature that constitute attempts to provide a comprehensive complexity approach to public policy. They are Eric Beinhocker's *Origin of Wealth: Evolution, Complexity, and the Radical Remaking of Economics* (2006) and David Colander and Roland Kupers's *Complexity and the Art of Public Policy: Solving Society's Problems from the Bottom Up* (2014). For Beinhocker (2006), competitive markets constitute a useful "evolutionary search mechanism" that encourages entrepreneurs to undertake a "deductive-tinkering process of differentiation," which leads to diversity, experimentation, and innovation (294). The basic starting point, at least, must be that the

government has an important role to play as the creator and arbiter of the evolutionary rules of the game. At the same time, the government should take a mostly hands-off approach in the spontaneous generation of free experimental variation, subject to the "natural selection" of bottom-up strategies, as an emergent result of the free innovation of economic agents. Similarly, Colander and Kupers (2014) argue that "accepting a complexity vision of the economy" requires a rethinking, or reframing, of the question of "how government interacts with the market" (156). For them, the crucial task for the government is "to create an ecostructure conducive to allow people the institutional space to self-organize in new ways to solve social problems" (276), so that, "given the right environment and encouragement by people through government, individuals could solve social problems from the bottom up with far less direct government involvement than we currently have" (276). The creation and maintenance of such an "ecostructure conducive to allow[ing] people the institutional space to self-organize" (276) requires a lot of learning by doing and trial and error on the level of institutions themselves.

Despite their disagreement on the details of public policy, the above authors converge on the recognition of the importance of bottom-up evolutionary learning in comparative public policy. Their policy recommendations can be roughly captured by the concepts of complex adaptation and permissionless innovation. The crucial challenge for complexity-aware political economy is to design an institutional framework, a new kind of evolutionary governance, that aims to maximize the possibilities of permissionless innovation via a robust set of sustainable, well-designed rules that, nonetheless, are susceptible to internal feedback and, when need be, periodic readjustment.

The Welfare State as Facilitator of Complex Adaptation

To the extent that welfare states are *already* overseeing a socioeconomic evolutionary process and intervening in its direction, they can be seen as already engaged in (often accidental and sometimes deliberate) *ecostructural governance*. The commands and laws of the welfare state, both in its redistributive and regulatory functions, shape the capacities and opportunities of the agents in the economy and generate various self-organizing processes within the market society. Every government action "from above" results in a mixture of intended and unintended socioeconomic consequences "from below" (Pennington 2011). Top-down policy interventions are turned into powerful semiotic signals that incentivize millions of self-moving, networked agents (individuals, families, businesses), whose actions are never entirely within the control of the centralized command hierarchy. Agents scuttle about in uncoordinated and spontaneous efforts to self-organize and adapt in creative ways in response to the complex semiotic signals in their socioeconomic environment.

Does the welfare state merely stand in the way of the spontaneous forces of socioeconomic evolution? Or does it contribute to its energy and direction? The complexity approach suggests that the government indeed has an important role to play in facilitating socioeconomic evolution through policy making but that it should do so in carefully bounded, complexity-aware, ecostructural ways. The government is seen as

the guardian of the complex adaptive ecosystem that needs to be empowered to regulate and redistribute in ways that enhance the capacities of agents but also limited in its scope and powers in order to leave room for bottom-up emergent outcomes. The complexity interpretation of the legitimate scope of government emphasizes that the government should limit its top-down interventions to the spontaneous order. This view is compatible with a generous governmental safety net and a range of corrective activities beyond the libertarian minimal state. It only dictates that, in conditions of increased complexity, a top-down government predictably finds it hard to provide optimal welfare outcomes in the sense of delivering predefined goods and services responding to predefined social and individual needs. Even if the government engages in the top-down facilitation of complex adaptation, what it cannot do (even in the best of times) is to outsmart, in the long run, the distributed decision-making process of millions, or even billions, of people interacting, and evolving, through the spontaneous order of the Great Society. This speaks against granting discretionary power to an "entrepreneurial state" (Mazzucato 2013).

So, the government cannot maximize social welfare in the long run with the help of top-down strategies alone. In an economy subject to complexity and evolutionary development, robust governance involves letting the evolutionary agents themselves experiment and innovate from the bottom up. However, this is compatible with a range of government interventions beyond a minimal state, including the provision of a minimum income guarantee. From the complexity perspective, if (and only if) the government correctly conceives its positive institutional role to be that of a powerful umpire of abstract and general rules, it can act as the stalwart defender and guardian of complex adaptation and permissionless innovation. The task of complexity-aware welfare-state governance is not to stop evolution, or to prevent selective mechanisms from doing their dirty work, but to cushion their impact and to make the evolutionary process sustainable for the whole society. This leaves the door open for various government measures, including the construction of a robust safety net, support for public health care, and more. This open-endedness has worried many libertarians, but it should be tolerable to those liberals whose defense of liberty is based on evolutionary and epistemic grounds. With this in mind, in the next section, I exemplify the welfarestate dimension of complexity governance through an analysis of F. A. Hayek's case for a guaranteed minimum income.

Universal Basic Income as a Hayekian Policy

The Hayekian Case for Universal Basic Income

A welfare state is compatible with the complexity perspective, but its *form* matters. In *Law, Legislation and Liberty*, Hayek (1982) essentially makes two related cases for a guaranteed minimum income. One of Hayek's arguments is more *expedient* (the Compatibility Argument); the other one is more *imperative* (the Necessity Argument). It is therefore useful to quote him at length.

Hayek's expedient case states that a guaranteed minimum income, at the very least, is *compatible* with individual freedom and the rule of law. It might therefore be safely implemented without impeding the functioning of the market society:

There is no reason why in a free society government should not assure to all protection against severe deprivation in the form of an assured minimum income, or a floor below which nobody need to descend. To enter into such an insurance against extreme misfortune may well be in the interest of all; or it may be felt to be a clear moral duty of all to assist, within the organized community, those who cannot help themselves. So long as such a uniform minimum income is provided outside the market to all those who, for any reason, are unable to earn in the market an adequate maintenance, this need not lead to a restriction of freedom, or conflict with the Rule of Law. (1982, 249)

Hayek's imperative case for a guaranteed minimum income, however, draws stronger conclusions from his analysis of the Great Society (that is, the spontaneous order). This is the perspective that, I believe, is most applicable to the context of evolutionary economics. It states that a guaranteed minimum income might even be a requirement of good governance if we understand the market economy as a complex adaptive system: "The assurance of a certain minimum income for everyone, or a sort of floor below which nobody need fall even when he is unable to provide for himself, appears not only to be a wholly legitimate protection against a risk common to all, but a necessary part of the Great Society in which the individual no longer has specific claims on the members of the particular small group into which he was born" (Hayek 1982, 395).

So, Hayek actually makes two distinct arguments. First, Hayek makes a pragmatic case for a guaranteed minimum income. This view emphasizes that the assured minimum income is compatible with the spontaneous order of the marketplace; it need not render it dysfunctional. Second, he argues for something more substantial: that a guaranteed minimum income may well be "a necessary part of the Great Society." I interpret this to mean that the assured minimum income might, in fact, be a necessary institutional safeguard of the sort of market society in which individual freedom in the spontaneous order of the marketplace is reconciled with the public demand for social security. This recommends something close to what today is called UBI:

Universal basic income: The government guarantee of a minimum income floor, paid in cash, at regular intervals, in uniform amounts, unconditionally, and without means testing, to all adult citizens (or permanent residents) of a country.²

Hayek's two arguments—the Compatibility Argument and the Necessity Argument—coexist in his various works, and they suggest varying degrees of consistent but underdeveloped support for, or at least tolerance of, a robust UBIlike system. Whether or not Hayek himself would have supported a fully universal and unconditional form of basic income is a matter of ongoing debate. It seems that his own preference, expressed sporadically, was for a universal means-tested minimum income (Zwolinski 2019). The crucial point is that Hayek's justifications for guaranteed minimum income can be applied to justify a full-blown UBI scheme regardless of what his own thoughts on the matter were (Zwolinski 2015; Lehto 2021). In my estimation, a

UBI-friendly interpretation of Hayek is the most plausible one since it fits his normative assumptions about the rules of the Great Society. So, a robust UBI scheme is compatible with Hayek's major philosophical aspirations and may, in fact, be required by them. In the next section, I analyze this argument in more detail.

Should Hayekians Support (or Oppose) UBI?

It is clear that nothing in the complexity perspective prima facie rules out a highly redistributive welfare state as long as such a state does not seriously hinder the possibilities for complex adaptive governance. But neither is there anything to necessitate redistribution by the state. So, should Hayekian classical liberals and other complexity theorists who primarily base their advocacy of individual freedom and limited government on evolutionary insights into the knowledge problem, market catallaxy, and complex adaptation be in favor of UBI? The answer is not obvious. In order to find out, complexity theorists should use their special tools to explore the pros and cons of various redistributive models. It seems to me that, given what we know about the features of different welfare-state regimes, UBI appears relatively attractive, as a second-best solution, for complexity theorists in general and Hayekians in particular. (Of course, not all Hayekians are keen on UBI even as a second-best solution; see, for example, Tebble 2009.)

It seems to me that there is a Hayekian case for UBI as a pragmatic tool of welfare-state governance under radical uncertainty given the real-world impossibility of scrapping the welfare state altogether. My hypothesis does not depend upon an acceptance of UBI as the first-best alternative (although this is not theoretically ruled out either). I argue that UBI's biggest theoretical advantage lies in the Hayekian arguments laid out above. However, one major *practical* advantage of UBI might be its capacity to offer a reformist platform that is palatable, albeit for divergent reasons, to not only liberal and libertarian but also some communitarian and progressive perspectives. This might lead the way to a new historic compromise between market liberals and progressives (social democrats)—whose benefits might well, in the end, outweigh the cost.

How can we justify a UBI? Let me offer some further arguments on top of the Hayekian case recounted above. First, if the complexity approach is correct, we should expect welfare systems that rely on complex bureaucratic monitoring to fail in their attempts to differentiate between the needy, the lazy, and the opportunistic free rider. This leads to the misallocation of resources, bureaucratic bloat, and institutional failures. Second, the systemic features of UBI—its unconditionality, absence of bureaucratic discretion, reliance on abstract and general rules, maximal universality, egalitarian access, and market conformity—have certain advantages from the point of view of complex adaptive challenges. The question is, which kind of safety net is the most conforming to the market and rule of law and the most economically viable? I think the answer is clear. UBI has systematic features that make it more compatible with the Hayekian framework than the highly bureaucratic and interventionist welfare-state bureaucracies that govern societies (and micromanage the lives of poor people) today. A complexity-sensitive income floor

based on UBI would allow ordinary citizens to better adapt to permanent uncertainty in the face of the adaptive challenges of the Great Society, especially if embedded into a broader palette of autonomy-enhancing permissionless-innovation policies. UBI, or something similar, should be explored as a second-best mechanism for gradually improving the adaptive efficiency of society because of its prima facie potential for scaling down bureaucracies, simplifying the tax-and-benefit system, increasing the freedom of welfare recipients, eliminating paternalism, and thus facilitating welfare innovations from the bottom up.

The contemporary UBI debate contains several realistic avenues for streamlining the welfare state to be more in line with the Hayekian vision of the complex market society as a self-organizing spontaneous order. Most recently, Hayekian scholars such as Charles Murray (2016), Michael Munger (2018), Matt Zwolinski (2015, 2019), and John Tomasi (2012) have made the market-liberal case for a streamlined UBI. In the opposite direction, an expansion of the redistributive state can also be used as a statist tool of rigidifying the welfare state and moving society even further away from the evolutionary vision of complex adaptation. By this I do not mean mere support for an active role for the welfare state as a provider of basic services and regulations, since this is perfectly compatible with the complexity perspective, but rather more substantial proposals to enforce certain collective patterns or standards on society. The relative likelihood of each scenario winning out depends on many local, regional, national, and international factors that are hard to compute in advance. Under optimistic scenarios, UBI can be used to streamline the existing welfare states into something better and more efficient. Such a way of streamlining the welfare state would align government powers in the service of individual freedom and therefore fit the vision of a complex adaptive society offered by Hayek and the complexity theorists. These optimistic scenarios are not guaranteed but are worth fighting for.

It is important to inquire whether UBI can facilitate complex adaptation better than any other reasonable policy alternative on the table and whether it can do so sustainably and across multiple environmental conditions and behavioral assumptions. On the level of theoretical political economy, this requires thinking about how UBI could be made sustainable and optimal with the help of appropriate institutional rules. This, of course, will require weighing the pros and cons of various concrete models in different settings via pluralistic research tools such as comparative institutional analysis as well as field and laboratory experiments. Securing the sustainability of UBI requires thinking about the welfare state as a system of abstract and general rules for facilitating complex adaptation. The perspective that is most conducive to such thinking culminates in Hayek and Gaus but really starts with David Hume. I believe that the only desirable and viable UBI scheme is one that instantiates the Humean system of abstract rules in a way that provides the legal foundations for the Hayekian evolutionary order. It is therefore incumbent to analyze UBI on Humean grounds.

UBI and the Humean-Hayekian System of Abstract and General Rules

The theoretical case for the public benefits of abstract and general rules, which is central to the neo-Hayekian thesis, goes back all the way to the consequentialist liberal political economy of David Hume (1777): "Public utility requires that property should be regulated by general inflexible rules; and though such rules are adopted as best serve the same end of public utility, it is impossible for them to prevent all particular hardships, or make beneficial consequences result from every individual case" (§257). Most obviously, this argument justifies the rule-of-law framework, the police, the courts, and private property. But my argument is that UBI, too, can be justified, and should be modeled, as such a "general inflexible rule" for redistribution that ought to be adopted, without regard to the "particular hardships" that it may cause, in order to safeguard and advance (Humean) "public utility." In this way, the fixed rules of UBI are like the fixed rules of property (with which they interact through the rules of taxation).

Similarly, the Hayekian vision of the competitive catallaxy as an evolutionary complex adaptive discovery procedure entails a comparative analysis of (existing and imagined) social institutions, which are carriers of the Humean abstract and general rules of justice and act as facilitators and destroyers of spontaneous social coordination: "Institutions are seen as 'guide posts' that help individuals to orient themselves with others—that is, institutions are regarded as indispensable components of a coordination process" (Lavoie 1985, 113). In particular, this emphasis on social institutions implies the corollary need to demarcate the laws and norms of the market order. These laws and norms institutionalize Hume's "general inflexible rules" that safeguard and advance public utility by providing for "a permanent legal framework so devised as to provide all the necessary incentives to private initiative to bring about the adaptations required by any change" (113). The Hayekian institutional prescription is one of devising "a general framework of nomos 'rules' as constraints within which decentralized initiative can operate smoothly" (151). This, of course, is only in theory. The question is: can the welfare state be made, in practice, to conform to nomos rules with the help of UBI? Or does UBI introduce an element of maladaptive redistribution that destroys the rule of law and the evolutionary potential of the economy?

On the positive side, UBI has several characteristics that make it amenable to complexity-aware governance. The uncontroversial key features of UBI are very Humean indeed: (1) *Universality/generality:* When you raise or lower the UBI for one person, you have to raise or lower the UBI for every other person in the community as well. (2) *Unconditionality:* You cannot exclude people from access to basic income based on their irrelevant behavioral traits. (3) *Simplicity:* UBI relies on few principles, which makes it easy to set up, run, and monitor for abuses. (4) *Automatability:* It is possible to set up the UBI as an autonomous program with minimal bureaucratic oversight and leeway.

UBI automation could be set up on the Milton Friedman model of bureaucratic streamlining, where various functions of the government are automated, in the limit case, by a computer program. Such a computer program could be written as a few lines of code (simplicity), be applicable to all citizens (rule of law), and be maximally constrained (limited government). It could thereby be institutionally prevented from engaging in discretionary interventionism beyond upholding the basic rules of the UBI scheme. In the optimistic scenario, the Hayekian implementation of UBI would allow for the enshrinement of the abstract and general rules of property *and* redistribution that reconstitute the adaptive *nomoi* in a way that maximally

constrains government coercion and empowers bottom-up innovation. In the bestcase outcome, UBI would be embedded into the constitutional rules of the society to make its core principles immune to parliamentary revision. Or, if this is not possible, it could be fitted into and overseen by a maximally autonomous government unit, such as a central welfare agency or a computer program that has sufficient distance from the fickle democratic process.

James Buchanan ([1975] 2001) proposed that the welfare state could be altogether removed from the realm of ordinary politics to the realm of constitutional rules. Buchanan produced a concrete model of a constitutional UBI guarantee (Brennan and Buchanan [1985] 2000; Buchanan 1997; Buchanan and Congleton [1998] 2001). The same idea is also entertained by Charles Murray (2016). A Buchananite approach to UBI would entail enshrining UBI into the constitution, or the fundamental structure, of society (Lehto and Meadowcroft 2020). Such a UBI would become part of the basic rules of the game that would govern the interaction of all agents. It would require a supermajority to revoke. However, in order to increase the robustness of the scheme, the constitution could delegate limited parliamentary powers to tweak the system through universal, rule-bound mechanisms. These parliamentary powers could include, for example, the power to regularly adjust the inflation-adjusted level of the grant (for example, +/-5 or 10 percent) to account for business cycles, GDP growth, technological development, and more. This kind of reformism might prevent the erosion of trust in the constitutional system. The system would therefore be poised between the flexibility of its parliamentary regulation and the inflexibility of its constitutional protection. Designing the system to be inflexibly constitutionalized would protect it against parliamentary oscillations while keeping the model amenable to periodic reform and readjustment (although in rule-bound ways) would protect it against the erosion of popular support, rigidification, and the danger of becoming obsolete because of changed social circumstances and mutable welfare needs. Achieving such a balance between fixed rules and institutional flexibility is easier said than done; but it highlights the axis around which the model should be built. Conceptualizing the UBI as a potentially libertarian institution of "general inflexible rules"—or as Hayekian nomos rules—would certainly be a paradigm shift. In the limiting case, although this is unrealistic, the welfare state would cease to be organized as an instrument of taking particular resources from particular people and giving them to particular people for particular reasons; it would instead be a universal and general system of tax and transfer based on an inflexible rule-following algorithm. In the extreme libertarian application, such as that of Buchanan and Murray, this would spell the end of the welfare state as we know it. A more progressive, or socialliberal, constitutional UBI model would also add other welfare-state functions, including the provision of public health care and education, and there is no reason why a pragmatic Hayekian government could not, under some circumstances, tolerate them.

In sum, a successful UBI reform could be used to restructure the welfare state as an evolutionary ecosystem in which human flourishing is seen as radically emergent out of the evolutionary process of the spontaneous order. Such a welfare state should focus more on facilitating the bottom-up emergence of experimental, trial-and-error solutions (to both known and unknown problems) than on centrally planning and implementing top-down solutions to known problems. As a result, most of the

monopolistic provision of goods and services by the government could be eliminated in favor of free competition supported by voluntary exchanges under the rule of law. The function of the UBI would be to set a floor below which no agent may fall. It would also be used as a ceiling—an upper bound for compensation (welfare rents) that agents can extract from the government. However, outside of the libertarian dreams of Buchanan and Murray, it is highly unlikely that there would be room for no redistributive schemes on top of the basic-income scheme. Even Hayek ([1960] 2001) might allow there to be some room for a limited range of additional top-down government programs. At any rate, it will not be easy to implement Buchananite constitutional constraints, to say the least. But once implemented, such constitutional rules could theoretically act as efficient bulwarks of the UBI system against both the gradual erosion of the UBI system and the excessive expansion of the welfare state. Such ecostructural reforms might therefore stabilize a new equilibrium point in welfare-state governance that is, at least in theory, characterized by a high degree of complex adaptation and permissionless innovation.

The Potential Dangers of UBI

I have focused on the abstract case for a libertarian basic income on Hayekian complexity grounds. But UBI cannot be treated in isolation from the broader policy debates. The institutional insights of Buchanan and Hayek can help us in minimizing various political and economic risks, but robust institutional safeguards are difficult to implement in practice. If implemented as part of the neo-Hayekian ecosystem of complex adaptation and permissionless innovation, UBI need not stand in the way of the emergence of bottom-up solutions to known and unknown problems; and it may help in facilitating an adaptively efficient spontaneous order of permissionless innovation. However, under certain conditions, a UBI reform can be used to stifle those very same evolutionary processes. Everything depends on how it is implemented and maintained across time. A poorly implemented UBI can turn into the very opposite of what was intended by the pro-evolutionary, complexity-aware supporters of the original reform. Even where the program itself is well implemented, it is possible that it will lead to an avalanche of regulatory reforms (whether in five years' time or fifteen years' time) that threaten to negate many of the gains generated by the original UBI reform.

The positive effects of UBI might turn out to be short-lived and counterproductive. It is therefore important not to be lulled by the theoretical simplicity of UBI. Sure, with all its practical problems and unknowns, UBI appears theoretically as a simplification and streamlining of the Kafkaesque, bureaucratic welfare state. And sure, it could be used to augment the freedom and autonomy of poor people. But it could equally be used by radical socialists and state planners as a first step toward a fundamental transformation of the Open Society into a more closed society. Such a UBI model could undermine the spontaneously coordinated society and transform it, inch by inch, into a centrally planned or evolutionarily stagnant one. This would be a very anti-Hayekian outcome indeed since people would have access to guaranteed minimum resources, yes, but without sufficient individual power or institutional support to engage in

permissionless innovation. There are many ways in which such a hostile takeover of the UBI model could happen. A nation may, for example, start off by implementing a reasonable, simple, and affordable UBI scheme that would be accepted by libertarians and social democrats alike—only for it to be gradually replaced by an unreasonably complicated and unaffordable one. Furthermore, some groups might want to hogtie UBI to a broadly illiberal framework involving onerous market regulation or the paternalistic stripping away of consumer choice. All of this would undermine poor people's real freedom. Under such circumstances, the theoretical positive effects of UBI might be partially or wholly negated.

Problems of a hostile takeover, erosion of support, and special-interest haggling threaten any public policy instrument, so the political instability of UBI is not unique. However, to the extent the universality and generality of the UBI model are its main appeal from the complexity point of view, it matters that the churning political process of welfare-state legislation, composed of state expansion and special-interest politics, is systematically skewed against the Humean-Hayekian rule-of-law principles of universality, generality, and abstractness, undermining them at every turn. So, UBI faces severe obstacles to its implementation from the public choice point of view (Boettke and Martin 2012). Although such worries are worth taking seriously, what they miss is that the elimination of the welfare state is not a real option on the table. The appropriate point of comparison is not an idealized state of free markets but a highly bureaucratic welfare state. Any attempt to eliminate the welfare state is likely to face significant opposition from the political process. Uncompromising libertarianism, then, will result in reinforcing the status quo, or something close to it, as the default position. Given where we are, using UBI to gradually move toward rule-based welfare generality, even if it does not go all the way, seems like a practicable reform in the right direction. And making improvements is all that matters in a world of nonideal policy interventions, where we have to choose between bad and worse. Steps in the right direction will then hopefully get us closer to the goal.³

The purpose of these thought experiments is to explore the possibility space of UBI design. Such an exploration educates scholars and political entrepreneurs about the many implementation challenges of any robust welfare-state reform. Although there are many pathways toward a UBI model that facilitates complex adaptation and permissionless innovation, there are also many pitfalls to consider before neo-Hayekians or other complexity-aware political economists should go all in on UBI. Like any remedial solution, UBI comes with its own political and economic risks.

Conclusion

The central lesson of the public policy perspective is that, since *complex adaptation is a tool for coping with radical uncertainty*, it is one of the primary duties of the government to *nourish and nurture complex adaptation*, which can be most efficiently done by allowing individuals and collectives to *self-organize*, *from the bottom up, via permissionless innovation*. The primary (although not necessarily the only) task of poverty relief consists in the maintenance of Humean–Hayekian abstract and general rules. Within that framework, the spontaneous order coordinates entrepreneurial actions, allocates resources, and gives

birth to bottom-up permissionless innovations that are solutions to the diverse problems of the citizenry. At the same time, the government takes a (largely) hands-off, non-interventionist approach to the economy.

Since there is a reasonable Hayekian case against government involvement beyond the core principles of ecostructural governance, all claims that a Hayekian welfare state is desirable, let alone feasible, should be approached with healthy skepticism. Nonetheless, there are several reasons to take the UBI proposal seriously. For one, the history of modern institutional development has locked our society on a redistributive path. Hayek ([1960] 2001, 1982) himself encouraged an open-minded attitude toward the design of the rules of the game. The popularity of UBI seems to be on the rise, and classical liberals should enter this debate with the particular tools and talents at their disposal. Complexity theorists have special insight into the comparative institutional analysis of various social-insurance proposals, including UBI proposals, from the point of view of how they contribute to the governance of complexity under conditions of radical uncertainty.

To summarize, the complexity approach to public policy suggests that complexity theorists should approach the topic of UBI in an open-minded but cautious fashion. My tentative hypothesis is that UBI may facilitate complex adaptation and permissionless innovation better than existing welfare-state structures. However, in order to get the most of it, and to prevent several counterproductive scenarios from materializing, UBI ought to be implemented with robust checks and balances in the form of Humean, Hayekian, Friedmanite, or Buchananite constitutional rules of redistribution. The problem is that these will be extremely hard to set in place and sustain over long periods. Furthermore, the success of a Hayekian UBI is heavily dependent upon the path-dependent institutional history of different countries; it is likely to work in certain countries, policy contexts, and periods but fail in others. After all, UBI is not only a potential servant of a spontaneous market order; it is also a potential servant of a centrally planned economy. It is too early to tell which tendency will win out; but with knowledge of the challenges ahead, complexity theorists can hopefully formulate adequate responses to the dangers of UBI. Any robust alternative to UBI should avoid assuming that the wholesale abolition of the welfare state is in the cards for the foreseeable future; and it should equally avoid falling back, as the knee-jerk default position, on the well-known shortcomings of existing (or planned) welfare states.

So, UBI has high theoretical compatibility with the view of poverty relief as a discovery procedure under the rule of abstract and general laws. This makes it appealing from the complexity and evolutionary point of view. Furthermore, as long as welfare states exist, complexity theorists should entertain pragmatic midway solutions, including UBI, that can be tweaked, one hopes, to increase the freedom of poor people and constrain the welfare state under *nomos* rules. They should do so with the full knowledge that any redistributive scheme will have unintended consequences and ambiguous-at-best effects on the uncertain course of the evolutionary process. Knowledge is power, and the absence of knowledge is powerlessness. However, the unavoidable elusiveness of epistemic certainty is not an insurmountable obstacle to prudent experiments in careful institutional reform.

Notes

- 1 For the extended elaboration of this argument, see my PhD thesis, currently under preparation for a book manuscript (Lehto 2022).
- 2 The precise definition may allow for some leeway in terms of eligibility. The important point to recognize is that any essential model of UBI should approximate and approach these criteria. As long as these criteria are approximated, detailed questions about whether UBI ought, in the final instance, to be given to illegal immigrants, sixteen- to seventeenyear-olds, or repeat violent offenders in prison can be left for debate.
- 3 Technically speaking, if we assume that agents have fixed end-goal preference, directional preference (that is, preference for the gradual steps toward the goal) is normatively justified as long as people exhibit modest consistency and transitivity of preferences in the possibility space of policy design.

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