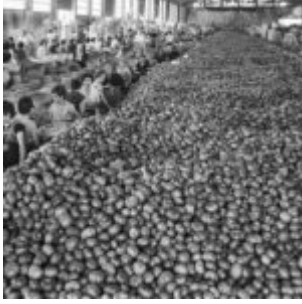


Beyond Capitalism: A Participatory Economy

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Early socialists, including Marx himself, were clear that instead of profit-hungry capitalists and the “anarchy” of markets, those they referred to as the “associated producers” should decide among themselves what to produce, how to produce it, and how to distribute it. Moreover, these early socialists believed that once freed from the yoke of capitalism, the “associated producers” would not find it terribly difficult to figure out exactly how to go about doing this. For the most part, they did not foresee serious problems and assumed instead that once humans were no longer divided into different classes with opposed interests, we would proceed without difficulty to finally fulfill our economic needs sensibly.

But that was a long time ago. That was before the International Working Men’s Association, founded in London in 1864, split between “anarchist” and “statist” factions in 1872; before the Second International was established in 1889, only to split into a Second “Social Democratic” International and a Third “Communist” International in 1919; before Bolsheviks, Mensheviks, anarchists, and Social Revolutionaries in Russia argued over what kind of economy to create after the revolution; before the Workers’ Opposition, Trotskyists, and Stalinists within the Bolshevik Party argued over economic policy; and before Stalin emerged victorious from this power struggle to launch a draconian version of authoritarian central planning during the 1930s, which survived various attempts at reform, more or less intact, well into the 1980s.

That was also before social democratic political parties in Western Europe decided after World War II that a mixed economy, tamed markets, and a welfare state were not just parts of a transition to a qualitatively different socialist economic system, but all that socialism should ever mean; before the Communist governments in one Eastern European country after another, and finally in the Soviet Union itself, were replaced in the early 1990s by governments that substituted capitalism for central planning; and finally, before the Chinese and Vietnamese communist parties also abandoned central planning in favor of a statist version of capitalism, leaving only Cuba and North Korea today with communist parties that preside over an economy where a central planning agency decides what public enterprises will produce.

In short, a great deal of water has passed under many bridges since early socialists imagined that the “associated producers,” once they were freed to do so, would manage and coordinate their work with minimal difficulty, and this history explains why most people today take it for granted that socialism is a proven failure. *This is why anyone who still believes in socialism must explain*

precisely how and why what we champion in the twenty-first century will be qualitatively different and better than what went under the name of socialism during the twentieth century. We must convince a public with every right to be skeptical that we socialists have truly learned important lessons and finally have our act together.

But learning lessons is seldom simple or straightforward. There is a great deal of disagreement among those who advocate for socialism about what exactly we should propose. Many now claim that only a social democratic version of capitalism is feasible and argue that an altogether different economic system is a pipe dream. Others propose to replace capitalism with one or another version of “market socialism.” Still others respond to the ills of over-centralization with visions of “community-based” economies. And a few continue to argue for more democratic versions of central planning.

I and other advocates of the model known as a “participatory economy”¹ believe *all* these responses to the intellectual crisis of socialism miss the mark and that instead, socialists need to return to our roots and explain how the “associated producers,” together with consumers, can plan their own interrelated economic activities democratically, efficiently, and without unrealistic demands on people’s time and energy. However, in light of socialism’s many failures, rosy rhetoric and generalities will no longer suffice. If we hope to convince a skeptical public today, socialists must provide concrete proposals for how all the different kinds of economic decisions that need to be made in a modern economy can be made and explain why these procedures will generate outcomes that are far superior to what any form of capitalism can yield.

We believe that while the vision of early socialists of worker councils and federations planning together with consumers was essentially sound, concretely how to go about this was neither as simple nor as obvious as early socialists presumed. We believe it no longer suffices for advocates to speak only of high-minded values and goals and describe in sweeping generalities what socialists would put in place of capitalism. While we believe that what we have presented is consistent with the vision of early socialists, we also believe that the history of socialist failures over the past hundred years has made clear that *the devil can be in the details*. If we are to avoid future disasters, and if we hope to convince a public with good reason to doubt that we socialists finally know what we’re talking about, then a great deal of careful, matter-of-fact thinking in advance about socialist economic institutions and decision-making procedures is needed.

In two recent books,² my co-authors and I respond to various criticisms of the participatory economy model that have been raised over the years and address important issues that we had not previously discussed. For the first time, we discuss (1) results from computer simulations to test the “practicality” of annual participatory planning, (2) how reproductive labor might be organized and rewarded to overcome gender biases, (3) how investment planning might be organized to maximize participation, and updated to improve efficiency, and how three different kinds of long-run development planning might also be organized: education planning, environmental planning, and strategic international economic planning. In this article I summarize the argument of these books, briefly highlighting the major features of this alternative to capitalism and then explaining how it deals with some serious problems that other post-capitalist proposals fail to address adequately.

A Participatory Economy in Brief

The key features of the model known as a “participatory economy” are:

Self-governing worker councils and neighborhood consumer councils, together with federations of these consumer and worker councils.

Jobs restructured—or “balanced”—so everyone performs some empowering tasks and any who work at less-desirable jobs are compensated for doing so.

Income determined by the effort and sacrifice people make at work as judged by their co-workers, together with allowances for those too young or too old to work and for those who are disabled, along with provisions for those with special needs.

The absence of markets or a central planning authority. Instead, the interrelated activities of different worker and consumer councils and federations are coordinated through a participatory annual planning procedure, a participatory investment planning procedure, and several different participatory long-run development planning procedures.

All economic activity has opportunity costs and social costs. (Opportunity costs are the losses of potential gains from other alternatives when one alternative is chosen.) A unique feature of the participatory annual planning procedure is that with the aid of ever more accurate estimates of the opportunity and social costs generated during the planning procedure, worker and consumer councils can formulate, revise, and agree upon their “self-activity” proposals themselves.

While we propose that investment and development plans ultimately be subjected to discussion, debate, and either a vote by the national legislature or a popular referendum, the procedures we propose for creating and modifying these plans are unique in two important ways: (1) Which federations and ministries are called upon to provide the information needed for drawing up these plans is determined by a careful examination of who has best access to that information and what their motivation is likely to be. (2) The inevitable errors in the estimates used in creating multiyear plans can be deduced by results from subsequent annual plans, so that investment and development plans can be modified.

Reconciling Democratic Planning and Autonomy

We believe our most important contribution is demonstrating concretely how to reconcile democratic planning with worker and consumer autonomy. We believe this was the Achilles heel of attempts to create socialist economies during the twentieth century, a problem that must be resolved if there is to be a future for socialism in the twenty-first century. In *Democratic Economic Planning* we explain in detail how annual participatory planning can be conducted without a central authority, allowing worker and consumer councils to manage themselves while requiring all to do so in socially responsible ways. We explain how a social, iterative procedure combining autonomy with social responsibility can achieve outcomes that are efficient, fair, and environmentally sustainable. And we provide evidence from computer simulations of the annual planning procedure suggesting that the number of times worker and consumer councils and federations would have to submit, revise, and re-submit “self-activity” proposals before a feasible plan is reached is not too burdensome, but is indeed quite practical.

Authoritarian planning discourages worker and consumer participation because it disenfranchises them. But poorly designed systems of democratic planning might also discourage worker and consumer participation. There is a serious danger that democratic planning can discourage participation on the part of ordinary workers and consumers by requiring them to engage in too much negotiation with others, especially if most negotiations are conducted by representatives, and quantitative information necessary to make informed decisions quickly is lacking.

But perhaps more importantly, if worker and consumer councils have no *autonomous* area of action regarding their *own* work and consumption activities, but must instead engage in seemingly endless discussion, debate, and negotiations with others in many different planning bodies about what they

want to do, then ordinary workers and consumers may well lapse back into apathy.

In this case, ordinary workers and consumers would no longer be formally disenfranchised as they are under authoritarian planning. But if procedures for involving all who are affected are cumbersome and clumsy, if necessary information for informed decision-making is lacking, and if processes rely primarily on representatives, all this may become a practical barrier to participation that only the most dedicated and determined workers and consumers will be willing to fight through. In other words, democratic planning when poorly organized can become just another bureaucratic maze from the perspective of ordinary workers and consumers, leading to what the socialist feminist economist Nancy Folbre warned can devolve into a “dictatorship of the sociable.”

Participatory planning is carefully designed so worker and consumer councils can decide what they want to do, as long as they do not misuse productive resources that belong to all or take unfair advantage of others. It is designed to help worker and consumer councils demonstrate to one another that their proposals are socially responsible by generating the information necessary to make such judgments quickly. It is designed to avoid unproductive and contentious meetings where representatives from different councils haggle over what those in *other* councils will do. And except in rare cases where more deliberation is needed, it is designed so decisions about approving councils’ “self-activity” proposals can be made very quickly. The participatory planning procedure will take a number of rounds before proposals are confirmed as fair and not wasteful of social resources and before excess demands are eliminated and a feasible plan is reached. But results from simulation experiments reported in *Democratic Economic Planning* suggest that the number of iterations required need not be excessive. Our annual participatory planning procedure is far more practical and robust than some critics have suggested.

Broadly speaking the goal is to arrive at an economic plan through deliberative democracy. But deliberation can take two very different forms: Deliberation can be about competing comprehensive plans and can take place at meetings attended by only a few representatives from different councils, to then be voted on by those representatives or in a national referendum. Alternatively, deliberation can be over what each worker and consumer council wants to do itself and can take place among members of each worker and consumer council, who formulate and revise their own “self-activity” proposals, knowing they will only be approved by others if they are demonstrably socially responsible.

The difference between these two ways of carrying out deliberative economic democracy cannot be overestimated. While the first conception of deliberative democracy may be more common among those who have historically advocated democratic economic planning, it has three disadvantages: (1) Only a few people from each council benefit from the deliberations—those sent as representatives—who then bear the burden of trying to convey their deliberative experience to those they represent. (2) Members of a worker council never formulate proposals for what they want to do themselves. Instead, their representatives, together with representatives from other councils, formulate and pass a proposal about what all must do. And (3) meetings of representatives proposing different comprehensive economic plans do not generate quantitative estimates of opportunity and social costs, without which sensible discussion of the merits of different proposals and plans is severely hampered, if not impossible. Our participatory planning procedure on the other hand empowers ordinary workers and consumers, not representatives, to formulate and revise their own work and consumption proposals, and it generates estimates of opportunity and social costs that are as accurate as can be hoped for, allowing everyone to easily judge whether different councils’ proposals are socially responsible.

Most importantly, rounds in our planning procedure are *not* rounds of increasingly contentious meetings between representatives from different councils debating the merits of different

comprehensive economic plans without the information necessary to make informed decisions. Instead they are meetings *inside* worker and consumer councils to formulate and revise their own proposals about what the members of each council want to do themselves, with clear guidelines about what is required to win approval from others. Unlike other models of democratic planning, (1) councils never have to engage someone else's ideas about what they should do; (2) only in rare and special circumstances do councils have to plead their case for what they want to do in meetings with others; and (3) there is always a clear agenda for any meetings required to adjudicate special appeals.

Opportunity Costs, Social Costs, and Social Rates of Return

Unfortunately, the importance of procedures that can be relied on to generate reasonably accurate information necessary for making informed economic choices is often lost on activists who have little or no economic training. While an aversion to putting prices on things is understandable in the context of capitalism which, in the words of Oscar Wilde, "knows the price of everything and the value of nothing," unfortunately, without reasonably accurate estimates of opportunity and social costs and social rates of return on investments (the social benefit that will result from any particular investment), it is impossible for anyone to participate in planning sensibly and in a timely way. If we want ordinary people to participate, we must not only give them voice and vote in our planning procedures, but we must also give them easy access to the essential information they need to arrive at sensible decisions quickly.

Unless I know the opportunity costs of scarce resources and categories of labor required by a work proposal, unless I know the social costs of producing the intermediate inputs needed, and unless I can compare these costs to the social benefits of the outputs the workers propose to deliver, how can I decide if a work proposal is socially responsible? If it is a work proposal my workmates and I are preparing for ourselves, I need to know this in order to ascertain whether we are proposing to do something that is socially responsible. I also need to know this to determine whether our work proposal will be approved by others or will be turned down, forcing us to launch an appeal. If the work proposal is one that another council has proposed, I need the opportunity and social costs in order to know if their proposal is socially responsible.

The same holds for consumption proposals. To know if my own neighborhood council's consumption proposal is fair, or if other neighborhood councils' consumption proposals are fair, I need to know the social costs and social benefits of producing the goods and services requested. With this information, except in rare cases that can be appealed, everyone can quickly see if consumption proposals are socially responsible. On the other hand, without reasonably accurate estimates of opportunity costs, social costs, and social benefits, there is no way to make these decisions.

We do not believe that any of the other formal proposals for how to conduct comprehensive, democratic, economic planning in the literature have successfully dealt with the problem of how to generate reasonably accurate estimates of the opportunity costs of using scarce productive inputs, be they different categories of labor, different "services" from the natural environment, or different capital goods—"stocks" of which at any point in time are scarce and should be allocated to wherever they are most productive, useful, and generate the greatest increase in social well-being. Our proposals will also generate reasonably accurate estimates of the social costs of producing goods and services, including the costs of emitting different pollutants. And finally, our proposal generates reasonably accurate estimates of the social rate of return on investment in capital goods, education, infrastructure, and environmental protection and enhancement.

Obtaining these estimates is important for two reasons. First, without such estimates it is impossible to know how to allocate scarce productive resources efficiently, which most economists readily

acknowledge. But what may be even more important is that without them it is impossible for worker councils, consumer councils, and federations to participate sensibly in economic decision-making without undue imposition on their time. Unless they are provided with reasonably accurate estimates, workers cannot know if their own proposals are socially responsible; consumers cannot know if their proposals are socially responsible; and nobody can know whether or not to approve or disapprove the “self-activity” proposals of others. However, *with* reasonably accurate estimates, worker and consumer councils and federations will be able to engage in socially responsible self-management without a central authority, without resort to markets, and without excessive burdens on their time.

Addressing Concerns About Impracticality

Some critics have been concerned that annual participatory planning is impractical because it cannot be done at the appropriate level of detail and because needed adjustments cannot be made when unanticipated situations inevitably arise. Ironically, perhaps the most common objection people have raised to our proposal over the past thirty years arises from a simple confusion about what a *comprehensive economic plan* is and is not. It is *not* a detailed plan of the kind that David Schweickart, Seth Ackerman, and initially Erik Olin Wright assumed, and which Schweickart ridiculed as “nonsense on stilts.” Comprehensive annual planning is done using coarse categories, such as “shoes,” not refined categories such as “size 6 purple women’s high-heeled shoes with a yellow toe.” There is no need to arrive at an annual plan for how much of every good to produce down to that level of detail. Coarse categories are turned into refined categories when the plan is carried out during the year, as producers become aware of which kinds of shoes are being purchased. And when unforeseen events arise during the year, a number of options for making adjustments are available.

As memory recedes of real-world twentieth-century centrally planned economies, apparently it has become difficult for many to imagine how comprehensive economic planning is even possible. While details and adjustments were often handled poorly by centrally planned economies of the twentieth century, those experiences certainly demonstrate that comprehensive economic planning is not a practical impossibility as some today presume. In any case, *Democratic Economic Planning* explains not only how the details that producers need are provided during implementation, but also why consumer preferences will be taken seriously in a participatory economy, even if they were not in twentieth-century centrally planned economies, and how plans can be adjusted during the year in light of events that were not foreseen when the plan was created and agreed to. There are reasonable questions critics have raised about the wisdom of our proposals—objections that we have acknowledged and responded to as best we can. But dismissing any kind of comprehensive economic planning as simply impossible is not one of them.

A more legitimate concern is that participatory annual planning may prove impractical because it would require worker and consumer councils and federations to engage in too many iterations—rounds of proposals, rejections, revisions, and new proposals—to reach a feasible plan. Market systems do not have to prove that they are a practical possibility. Nor, for that matter do authoritarian, or centrally planned, systems have to prove they are possible, since they functioned for many decades in the Soviet Union, Eastern Europe, China, and in Cuba still, *whatever their many defects and failures may be*. But in no place has anything like the annual participatory planning procedure we propose ever been deployed, so the only way to test its practicality is to use computer simulations to see how many rounds, or iterations, of proposals and revisions would be required to reach a feasible and efficient plan.

We reported on results bearing on the practicality of our annual planning procedure in Chapter 9 of *Democratic Economic Planning*. The most indicative result was that in forty “experiments,” with

thirty thousand separate worker councils, thirty thousand consumer councils, and one hundred products, it took on average only 6.5 iterations to reach a feasible plan, and in no case did it take more than 9 iterations. Nor did changing the number of councils or number of goods seem to increase the number of iterations required. In short, the number of iterations required appears to be what worker and consumer councils and federations could easily do in the month of December, yielding a comprehensive annual plan ready to go on January first of every year. The source code and algorithm are available online,³ as are the data files for the large-scale experiments we conducted.⁴

Integrating Long-Run and Short-Run Plans

We need both short-run (one-year) and long-run plans. Obviously, the results from long-term plans are needed by those creating annual plans. Before we can do annual planning, we need to know how much of each capital good has to be produced this year to support long-term goals. We need to know how much must be allocated to the educational system to train and teach various skills to the present and future workforces. We need to know what resources must be allocated today to provide future environmental protection and enhancement.

What is less obvious is that the results from annual planning can be used to identify mistaken assumptions in the creation of the longer-term plans, so that these longer-term plans can be modified to reduce losses in well-being. When investment and development plans are first made, there is no alternative to formulating *estimates* of what consumer preferences will be, and what technologies will become available, in the future. However, as these estimates will be inaccurate to some extent, investment and development plans will fail to maximize social well-being because they will call for either too little or too much investment in general, and too little or too much investment in different areas.

Our most important contribution to the literature on investment and long-term planning is that we demonstrate how the results from annual plans after the first one *reveal* where errors were made when investment and development plans were initially created. And then the long-range plans can be revised in light of this new, more accurate information to mitigate welfare losses. Clearly, the revised investment or development plan cannot do as well as an initial plan based on accurate estimates; we cannot undo the damage done by inaccurate estimates before they are caught. But the revised plans can nonetheless perform better than permitting initial long-term plans to proceed uncorrected.

This is very important. Once it is conceded that as a practical matter economic planning cannot be done in one single operation covering many, many years, but must instead be done via separate procedures—that is, once we recognize there must be an annual planning procedure, an investment planning procedure, and various long-term, development planning procedures—then one must deal with the problem of how to integrate these different planning procedures with one another. If this could not be done, the case for economic planning would be greatly weakened. But because we are able to demonstrate how different planning procedures covering different time frames can be integrated, the case for economic planning is very much strengthened.

Our proposals for investment and development planning also address two issues that many others ignore. While it is fine and good to propose that the division of output between consumption and investment be determined democratically after ample debate, (1) What is to be done about the fact that future generations who will be affected by these decisions cannot vote? And (2) how can anyone vote sensibly about how much of present output should be devoted to investment rather than consumption unless they know how productive investment will be, that is, how much future output will be increased by investment in more capital goods, more “human capital,” or more “natural

capital”?

Our proposed answer to the first dilemma is what we call the “generational equity constraint.” Depending on how productive investment proves to be, how damaging environmental deterioration proves to be, and how much higher consumption per capita proves to increase well-being, it may be that investment plans which seem to be efficient nevertheless either (1) leave per capita consumption for early generations too low compared to per capita consumption for later generations, or (2) leave per capita consumption for later generations too low compared to per capita consumption for earlier generations. To prevent either from happening, we propose that there be a limit set on the percentage by which consumption per capita can differ between any two adjacent years. The limit would be set by the present generation, but our proposal provides built-in incentives to ensure that the present generation will be an honest broker on behalf of future generations. The present generation will not want to choose too high a percentage, because then they will be disadvantaging themselves by deferring too much current consumption to support the investment that generates greater consumption growth in the future. Nor will they want the percentage to be too low, because this would limit the growth in the current generation’s consumption over their own lifetimes. Thus, this constraint protects the interests of future generations who cannot be present when investment plans are drawn up and agreed to.

Our answer to the second problem is to carefully consider *who* should be delegated to estimate the various terms in the efficiency conditions for investments in capital goods, human capital, environmental protection, and infrastructure. For each kind of investment plan, we consider both who is best suited to judge how large some future benefit or cost will be, and who might be motivated to either over- or underestimate some benefit or cost.

For investments in capital goods, we propose that the National Federation of Consumer Councils, assisted by its research and development department, would be the body that would estimate changes in future consumers’ utility functions. And we propose that the National Federation of Worker Councils, with input from both its research and development department and industry federations of worker councils, would be the body that would estimate changes in future production functions.

For investments in human capital, we recommend that delegates to industry federations of worker councils work with officials in the Ministry of Education to estimate both the production benefits and the social costs of more education. We propose that delegates to the National Federation of Consumer Councils, together with officials from the Ministry of Education, estimate the long-term personal benefits from education. And we recommend that the national legislature, in consultation with the Ministry of Education, be charged with providing planners with estimates of the political “capacitation” benefits of additional education.

In the case of environmental planning, we recommend that delegates to the National Federation of Consumer Councils estimate what environmental economists call the “use value” and “existence value” that people will place on changes to the natural environment in the future, and that the Ministry for the Environment work with industry federations of worker councils to estimate the effects of investments in environmental protection and enhancement on production—where often what we need to know are the effects of declining stocks of environmental assets on future production.

We view the National Federation of Consumer Councils as best situated to estimate the value to households of changes in infrastructure, while industry federations of worker councils are the best judges of how much improvements in infrastructure will cost, as well as how much

they will increase future production.

Once each kind of investment plan is created, and adjusted if necessary to be consistent with the generational equity constraint, we propose that it be debated and voted on by the national legislature or put to a national referendum and then adjusted in light of new information that subsequent annual plans reveal to mitigate welfare losses, as already explained.

Reproductive Labor

All human activity consumes material inputs and generates material outputs. And all human activity reproduces or transforms those who participate in the activity. So any dividing line between “economic” activity and “reproductive” activity is necessarily arbitrary. Nonetheless, the primary purpose of some activity is to transform material inputs into more useful material outputs, while the main purpose of other activity is to nurture, care for, educate, or socialize—that is, to “reproduce”—a population of human mortals.

How to conceptualize reproductive activity and its relation to other kinds of human activity is important but can be contentious. Without diving deeply into this debate among mainstream feminists, radical feminists, Marxist feminists, and socialist feminists, it is useful to say a few words about our approach and use of language. Most importantly, we make no assumption about the relative importance of economic activity versus reproductive activity, or the importance of what we call the *economic and reproductive spheres of social life*, except to assume that they are both important. We believe it can be useful to refer to reproductive activity as “reproductive labor” to emphasize that it often requires sacrifices, and is in that sense burdensome, and that it often takes place in workplaces in the formal economy, where human activity is usually called “labor.” However, we see no need to emphasize the importance of reproductive activity by calling it “labor,” because we assume that reproductive activity is just as necessary as economic activity, and their relative importance depends on the overall social formation and must be determined empirically.

A large feminist literature highlights the unequal distribution of costs and benefits of reproductive labor and points out that this is a crucial part of inequality that is often overlooked. Socialist feminists argue that not only has capitalism historically discouraged caregiving, and penalized those who provide it, but capitalism has also undermined values that promote caregiving, such as empathy and solidarity, and weakened cultures that encourage us to consider collective well-being as well as our own. They argue that by penalizing caregiving, capitalism has gradually eroded social cohesion as well as the health and overall well-being of our communities. And they argue that by excusing men from most caregiving, it has encouraged them to be less empathetic than they might otherwise be. Drawing on insights from this literature, in order to stimulate discussion about *positive solutions*, in one of the chapters of *Democratic Economic Planning*, Savvina Chowdhury, Peter Bohmer, and I propose concrete policies to organize and reward reproductive labor in a society with a participatory economy.

There is every reason to believe that absent structured intervention, reproductive activity that takes place along with economic activity in worker councils in the participatory economy would continue to suffer from a gender bias with two adverse consequences: (1) If women continue to perform more than their share of caring and socialization labor in worker councils, women might continue to be compensated less than they should be. (2) If men continue to perform less than their share of caring and socialization labor in worker councils, men will be under-exposed to positive “human development effects” of caring labor, which tend to sensitize people toward the well-being of others and develop a caring culture of solidarity. We propose four concrete policies to avoid these predictable outcomes in workplaces in a participatory economy.

Women's Caucuses: The first is to empower women's caucuses in worker councils to challenge any kind of gender bias in their workplace. If a women's caucus believes that the committee in charge of restructuring jobs has combined tasks in a gender-biased way, or that there was gender bias in the job assignments, or that gender bias has affected workplace effort ratings, or any other aspect of life in the workplace, then the women's caucus is empowered to not only raise their criticism and trigger a motion to reconsider, but more importantly to issue a temporary "stay" order against the offending practice until a full review of the policy can be completed. Moreover, if after this full review a majority of worker council members vote to retain the policy that its women's caucus deems offensive, we propose that the women's caucus have the right to appeal that decision, with the approval of the women's caucus of an appropriate regional or industry federation of worker councils, to the appropriate regional or industry federation of worker councils itself.

Formally this procedure amounts to kicking a decision up the federation ladder if the women's caucus and full membership continue to disagree. We understand why this solution is worrisome. However, we see no other way to remain true to the principle of democratic rule. Moreover, we feel there is reason to hope that active use of this process can provide the kind of "soul-searching" debate and reconsideration needed to overcome gender biases, which date back millennia. In any case, we welcome debate on other options.

Balance Jobs for Caring Labor: The second proposal is to balance jobs not just for empowerment and desirability but also for the degree to which they involve caring labor. Historically, reproductive labor has been feminized—linked with femininity as biological determinists argue that women are inherently better suited for these tasks than men. Balancing jobs for caring labor can help overcome this stereotype and teach men that they too can be caring, empathetic, and solicitous of the well-being of others.

However, neither of these first two policies addresses occupational and industry gender segregation. Will most nurses continue to be women and most carpenters continue to be men? Will most members of worker councils that provide house-cleaning services continue to be women and most members of worker councils that provide home repair and lawn maintenance continue to be men?

Consider an occupation that is majority male. If the proportion of females admitted to an educational or training program for this occupation is lower than the proportion of qualified females who applied, and if this difference is statistically significant, we have *prima facie* evidence of discrimination in the admission process. Or, consider a worker council that is majority male. If the proportion of females hired as new members is lower than the proportion of qualified female applicants who applied, and if this difference is statistically significant, we have *prima facie* evidence of discrimination in the hiring process.

Anti-discrimination Legislation: Presumably an active women's movement, including women's caucuses in all places of employment, will investigate suspected cases of discrimination, insist on internal reform, and, failing that, file anti-discrimination complaints through the legal system, seeking both remedy and compensation for victims. So our third recommendation is robust legislation outlawing discrimination in hiring, with serious penalties for violators, which active gender caucuses can help enforce aggressively. We recommend that caucuses for people of color, indigenous groups, the LGBTQ community, and people with disabilities be similarly empowered in all places of employment, and we support extending anti-discrimination legislation to designate all groups who have been historically discriminated against as "protected classes."

However, feminist research has conclusively demonstrated that discriminatory hiring, which can be addressed by anti-discrimination legislation, is not the only way gender bias can be perpetuated. All too often the applicant pools themselves display a gender bias *for which there is no biological*

explanation. We propose that people be free to apply to whatever educational and training programs they wish and for membership in whatever worker council they want. However, this does not mean we should do nothing if applicants for different jobs continue to be disproportionately one gender or another.

Affirmative Action: Fortunately there is a remedy that does *not* violate the principle that everyone should be free to apply to whatever educational programs and workplaces they wish. Where evidence of historic bias is strong, we recommend *gender quotas* for educational programs and hiring. To be clear, this means sometimes requiring that the fraction of females admitted or hired be higher than the fraction of female applicants. We anticipate that such measures, popularly known as affirmative action programs, will be necessary to overcome historic gender biases.

It is impossible to predict to what extent gender bias will still plague a society when its citizens decide to replace capitalism with something like a participatory economy. However, given how resilient gender discrimination has proven to be, it would be unrealistic to assume that such a society would be immune to it, which is why we propose that the above measures be applied in a participatory economy.

Reproductive Activity in Households

With the exception of mandatory public education for children between the ages of five and eighteen, we believe people should be free to choose how much reproductive labor to do themselves in their households, as opposed to having it done by others in the public economic, healthcare, or education system. How should reproductive activity performed in households be monitored and compensated?

It may not be possible for men to carry half of all fetuses through nine months of pregnancy, but it is certainly possible for men to share the burdens of housework equally with women. Of course, the problem is how to get men to do it!

As discussed, when monitored by active women's caucuses armed with the power to issue "stays," job balancing committees in worker councils can do a great deal to eliminate gender bias in traditional job structures by combining tasks in new ways, so that every job contains tasks previously performed almost exclusively by women, thereby guaranteeing that men will also have to do some "women's work." In other words, just as committees that combine tasks into jobs can balance jobs for empowerment (to promote economic democracy) and desirability (for economic justice), they can also balance jobs for caring labor as well. Similarly, anti-discrimination laws and affirmative action programs, backed by powerful women's caucuses, provide effective ways to challenge gender bias in hiring, firing, assignment, and evaluation in a participatory economy and in the public education and healthcare systems as well. But there are no caucuses within households to empower women, nor do anti-discrimination laws and affirmative action programs reach inside households. This implies that organized social pressure must be even more intense if men are to be induced to do their share of housework. Where can organized social pressure come from?

Women's caucuses in neighborhood councils should provide moral support for women who would otherwise be isolated in their struggles to convince male partners and housemates to do their fair share of housework. Women's caucuses in neighborhood councils can also confront men who are particularly wayward. Women's caucuses in neighborhood councils can organize cooking and cleaning classes for men who fail to participate in these tasks for lack of necessary skills rather than lack of desire. And women's caucuses in neighborhood councils can also make sure that consumption furthers gender equality when decisions are made about private versus public goods, and kinds of public goods. But we do not believe it would be wise to empower women's caucuses in

neighborhood councils to issue stays or dictate behavior within households as we have proposed they be able to do in public settings.

Admittedly, this is a difficult issue. Just as we had to reconcile combating gender discrimination with the principle of democratic rule in public settings, here we must reconcile combating gender discrimination with the principle of protecting people's privacy within households. And again, we welcome further debate on this subject.

Conclusion

Critics argue it is not our place to dictate to those who will follow us what they must do. Some even accuse us of being anti-democratic for doing so. But the point of making concrete proposals is not to dictate to anyone. Nobody should doubt that future anti-capitalist movements will make their own decisions about how to proceed when they have the chance. Instead, the point is simply to make concrete proposals so they can be dissected, analyzed, and criticized, and thereby provide higher quality "pre-thinking" for those who will, of course, decide what to replace capitalism with when opportunities arise.

Critics also argue that there is no time to "build castles in the air" while campaigns to oppose the many ills of a neoliberal capitalism desperately need all the volunteers they can get, in particular when cataclysmic climate change looms ever nearer on the horizon. While we agree that most of our energy must be devoted to strengthening various reform campaigns, nurturing different living experiments in equitable cooperation, and reducing climate change before it is too late, we also believe that—particularly in light of past failures—it is important to improve the quality of debate about exactly what anti-capitalists would put in place of capitalism. It should not be that hard to walk and chew gum at the same time.

Notes

1. Michael Albert and I first proposed this model in *The Political Economy of Participatory Economics* (Princeton University Press, 1991), and *Looking Forward: Participatory Economics for the Twenty-first Century* (Boston: South End Press, 1991).
2. *Democratic Economic Planning* (Routledge, 2021) is addressed primarily to economists, while *A Participatory Economy* (Chico, CA: AK Press, 2022) is addressed primarily to political activists.
3. The Clojure and Clojurescript code may be found at this GitHub website; a version of the original Netlogo instance of Pequod may be found at this GitHub website.
4. The files are downloadable as gzipped Clojure data files at this website.