

Chapter 4: Active Therapy: Creating Shared Goals for a Sustainable and Desirable Future

We cannot predict the future, but we can design and help create the future we all want. To do this we need to better understand how cultures evolve and change and how to overcome societal addictions and roadblocks to positive change. Creating a shared vision is a critical step in this process, best thought of as ‘societal therapy.’ On the world stage, the UN Sustainable Development Goals (SDGs) are an important step toward creating a shared vision of a positive future for all countries on Earth. Goal setting, envisioning, and scenario planning are important tools that have been used to guide and enable transitions in businesses, communities, and individuals. This chapter discusses these theories, tools, and processes and how they have been used to create alternative futures to motivate and guide major transitions. It then proposes a research and action agenda to enable better understanding of cultural evolution, how to direct it toward desired goals, and how to create a shared vision of the goal - a world of sustainable wellbeing we all want. The chapter explores the following key questions:

1. How does cultural evolution work? How do we explain the growth, development, decline and transformation of alternative socio-ecological regimes, including the roadblocks to positive societal change?
2. What are the potential ways to overcome roadblocks to positive societal change, including ‘societal therapy’?
3. How can shared visions of the future be created at multiple time and space scales?

4.1 Cultural Evolution and The Role of Envisioning in Creating the Future We All Want

One often hears about the need for a ‘theory of change.’ This usually means a strategy for accomplishing the stated goals of a project, rather than a real, general theory of how change happens (Anderson and Harris 2005). The Center for Theory of Change defines it as: “A Theory of Change provides a roadmap to get you from here to there.¹⁴” While it is certainly good to have a well thought out strategy for accomplishing specific social goals, a true theory of *social* change

is a very different and much more ambitious thing. If the goals of a social-change project are societal in scale—if they hope to implement changes as sweeping as transforming a civilization’s relationship to the rest of nature into a sustainable one—a more complete theory is needed.

A successful (i.e., fully functional) theory of social change must acknowledge that social systems are always and everywhere embedded in the ecosystems that contain and support them. Humans do not live on the blank white pages of textbook abstraction, but in a physical world where growing seasons, rainfall averages, arable landscapes, and other physical phenomena shape what can and can’t, and what will and won’t be possible outcomes for purposive social change. Ecosystems at multiple scales, including the entire Earth ecosystem, are also subject to their own evolutionary dynamics. This means that a successful theory of social change must be grounded in an expanded evolutionary paradigm that is capable of addressing not only how organisms and ecosystems evolve and change, but also how rules, norms, institutions, and cultures evolve and change (Ostrom 2013). This chapter first discusses a broader theory of how complex systems from organisms to ecosystems, communities, states, nations, and the planet as a whole evolve and change, and how we can use this theory to design strategies to get from here to a desired there.

In biology, evolution is *the* theory of change - it applies across the board. Over time, for all life forms, adaptive change is the only constant. But in the recent past, evolutionary theory has gone down what David Sloan Wilson has identified as some wrong paths. The emphasis on selection at the genetic level, to the exclusion of selection at other levels of organization, has hindered the development of the field and slowed integration with the social sciences. When one considers the evidence more comprehensively, it is clear that selection occurs at multiple levels, and ‘between group’ selection may in some circumstances be more important than within group selection (Wilson and Wilson 2007a).

“Multilevel selection theory is relevant to any trait that affects the fitness of other individuals in addition to the individual possessing it, which includes but goes far beyond the stock example of altruism. The theory can help explain the origin and major transitions of life, the structure of animal societies and multi-species ecosystems, and human evolution—even including the rise and fall of empires and the nature of religion” (Wilson and Wilson 2007b).

That norms, rules, communities, and cultures evolve in a way analogous to biological systems builds on the work of several other researchers (Boyd and Richerson 2005). From a multilevel selection point of view, cultural evolution can *only* occur at the group level since communities and cultures are inherently collections of individuals who are not genetically related. In fact, as Wilson and Wilson (2007a) point out, even complex individual organisms are really communities of multiple organisms— such as the complex internal bacterial communities that make digestion possible in many organisms.

At the level of communities, what has been termed the ‘symbotype’ replaces the genotype as the carrier of information to the next generation (Wilson et al. 2013a). Symbotypes are cooperative rules and norms which occur at multiple levels of organization, from the specific to the basic ‘world views’ that guide the behaviour of entire cultures. Selection likewise occurs at multiple levels, both within and between levels. Which level of selection dominates will vary with a number of factors, but as Ostrom’s research has shown, it is certainly possible for symbotypes to evolve in complex social groups to counteract selection for selfishness within the groups.

This perspective, drawn from current work in multilevel selection theory, sheds light on the major problem facing humanity today. The problem isn’t simply the interconnected crises of climate disruption, species extinction, or growing inequality, but something larger and more general. Civilization as currently practiced is both unsustainable ecologically and undesirable socially. It is no longer contributing to net improvement of overall human well-being (Costanza et al. 2013; Kubiszewski et al. 2013). As discussed earlier, the dominant global culture is based on a consumerist worldview and takes maximizing material consumption, as measured by GDP, as the primary path to change and improvement. To salvage civilization from the excesses of its success will require the articulation of alternative cultural symbotypes and selection pressure to prefer one of the alternatives that is thus generated.

How might this happen? One way to think about this comes from the work of Paul Ray and Sherry Anderson, who have been surveying Americans and categorizing them into alternative worldviews (Ray and Anderson 2000; Ray 2008). They have grouped Americans into three broad symbotypes:

(1) Modernists (M)—the dominant worldview of markets and economic growth—46% of the population in 2000; (2) Traditionalists (T)—a nostalgic appeal to earlier (often more religious) times—26% of the population in 2000; and (3) Cultural Creatives (CC)—a worldview based on sustainability, equity, and sufficiency—28% of the population in 2000. CC's are “disenchanted with owning more stuff...materialism... status display and the glaring social inequities of race” (Ray and Anderson 2000). These percentages have been changing rapidly. In 1965 CC's were a mere 3%, M's 50%, and T's 47% of the population. We thus have a measure of how fast basic cultural symbotypes have been changing at least in the US, and a ‘theory of change’ that may help understand historical behaviour and forecast how and when a major cultural transformation might occur.

For example, we might hypothesize that if recent rates of change of cultural symbotypes continue, at some point in the not too distant future the fraction of the population that is motivated by the CC worldview will come to dominate and (assuming a democracy) will begin to change goals, rules, and policies in ways that more directly support the CC symbotype. One might call this combination of worldview, institutions, and technologies at multiple levels of organization a ‘socio-ecological regime’ and conclude that a useful theory of change would need to explain the growth, development, decline, and transformation of alternative regimes (Beddoe et al. 2009a). One hypothesis is that socio-ecological regimes change when ‘tipping points’ are reached, often requiring some combination of financial, political, or environmental crises as a trigger. One might argue that the recent trend to polarize world views signals a resurgence of the M and T symbotypes and a delay in reaching a potential tipping point.

This can occur because, like other evolutionary processes, cultural evolution is prone to path dependence, multiple equilibria, lock-in, societal addiction, and traps (Costanza 1987; Arthur 1988; Costanza et al. 1993; Costanza et al. 2017). Many historical civilizations have collapsed due to their inability to escape these processes (Tainter 1988; Diamond 2006; Costanza et al. 2007b). For example, the ancient Maya developed elaborate trade networks, elites, and cities that lost resilience to recurring drought cycles and eventually collapsed (Diamond 2006; Heckbert et al. 2014).

As discussed earlier, societies, like individuals, can get trapped in patterns of behaviour (social traps or ‘societal addictions’) that provide short-term rewards but are detrimental and unsustainable in the long run. Current examples include societal addiction to inequitable over-consumption fuelled by fossil energy and a ‘growth at all costs’ economic model. We might learn how to overcome these societal addictions from successful therapies at the individual level (Costanza et al. 2017). Effective therapies for societal addictions may be possible, but, as we learn from Motivational Interviewing, they will require a rebalancing of effort away from only pointing out the dire consequences of current behaviour (without denying those consequences) and toward building a shared vision of a positive future and the means to get there.

One unique feature of cultural evolution compared to biological evolution is that it is ‘reflexive’ in the sense that goals and foresight can affect the process.

“To a certain extent, we can design the future that we want by creating new cultural variants for evolution to act upon and by modifying the goals that drive cultural selection. If our societal goals shift from maximizing growth of the market economy to maximizing sustainable human well-being, different institutions will be better adapted to achieve these goals. As we learn more about the process of cultural evolution, we can better anticipate the required changes and can more efficiently design new institutional variants for selection to work on” (Beddoo et al. 2009a)

This can radically speed up the change process in socially desired directions. The rapid rise of *Homo sapiens* demonstrates our species’ ability to rapidly change behaviour through cultural rather than biological evolution. What the Maya and other collapsed civilizations evidently lacked was the ability to envision radically different world views, institutions, and technologies—new cultural regimes and symotypes— in response to changing conditions or the ability to make timely, smooth, intentional, and appropriate transitions. If this feature of cultural evolution can be improved, it may help to avoid lock-in, evolutionary dead-ends, and societal collapse.

Biological evolution has no foresight and can only act on and select from the alternatives in place at any point in time. Humans are rapidly improving their ability to build complex models,

simulations, and designs of future possibilities. Such models are useful for exploring and pushing past entrenched understanding of various challenges from climate change to nutrient dynamics. However, to fully leverage the adaptive learning capacity such models and projections can provide in a societal context, engagement with stakeholder communities is essential. Over time the ability to pre-select the preferred alternatives from a much wider range of possibilities emerges

Scenario planning is one technique that can be used to accomplish this task at larger community, national, and even global scales. Scenario planning creates an ability to discuss and develop consensus about what social groups want (Peterson et al. 2003). Predicting the future is impossible, but what we can do is lay out a series of plausible scenarios, which help to better understand future possibilities and the uncertainties surrounding them. Scenario planning differs from forecasting, projections, and predictions, in that it explores *plausible* rather than *probable* futures, and lays out the choices facing society in whole systems terms. One can think of these in evolutionary terms as alternative symbotypes for selection, but in hypothetical rather than real versions.

4.2 Scenarios: Alternative Visions of the Future

‘Scenario’ is a term with multiple meanings. Scenario exercises vary in their objectives and hence in their characteristics (Biggs et al. 2007). Scenarios are essentially stories that consider how alternative futures, typically related to a particular focal issue (O'Brien 2000) may unfold from combinations of highly influential and uncertain drivers and their interactions with more certain driving forces. Scenario planning differs from forecasting, projections, and predictions, in that it explores plausible rather than probable futures (Peterson et al. 2003). Although aspects of the future worlds depicted by scenarios may come to eventuate, these worlds are often best viewed as caricatures of reality from which we can learn.

Scenarios are best suited to exploring situations of high uncertainty and low controllability (Peterson et al. 2003). In these situations, scenarios can help to illuminate the consequences of these uncontrollable forces and to formulate robust responses. Importantly, scenarios can help to reveal policy and value changes that may be required, as well as key branching points at which such changes can most affect outcomes (Gallopín 2002).

Scenarios have been developed for a range of applications from global to local scales, including corporate strategy (Wack 1985b), political transitions (Kahane 1992; Kahane 2004), and community based natural resource management (Wollenberg et al. 2000; Evans et al. 2006). Table 4.1 shows a small sample of the range of previous scenario planning exercises that have been carried out at global, national, and regional scales. In the following, I explore one of these exercises – the Great Transition Initiative. An interesting feature of many of these exercises is that their scenarios tend to fall along a spectrum of ‘quality of life’ or human wellbeing and therefore I have grouped the scenarios in this way in Table 4.1.

Table 4.1. A selection of previous scenario planning exercises.

	Quality of Life or Overall Wellbeing of the Scenario			
	Most Desirable (highest overall wellbeing)	Intermediate (based on cooperation)	Intermediate (based on individuals and markets)	Least Desirable (lowest overall wellbeing)
South Africa (Mont Fleur) (Kahane 1992)	Flight of the flamingos	Icarus	Lame Duck	Ostrich
Four Futures (Costanza 2000b)	Ecotopia	Big Government	Star Trek	Mad Max
Special Report on Emissions Scenarios (SRES) (Nakicenovic et al. 2000)	‘B1 world’ (global sustainability)	‘B2 world’ (local stewardship)	‘A1 world’ (world markets)	‘A2 world’ (national enterprise)
Millennium Ecosystem Assessment (MEA) (2005)	Adapting mosaic	Global orchestration	TechnoGarden	Order from Strength
Great Transition Initiative (Raskin et al. 2002)	Great transition	Policy reform	Market forces	Fortress world
New Zealand (Landcare Research Scenarios Working Group 2007)	Independent Aotearoa	Living on no. 8 wire	New frontiers	Fruits for a few
Great Barrier Reef (Bohensky et al. 2011)	Best of both worlds	Treading water	Free riding	Trashing the commons

The Great Transition Initiative (GTI) is an ongoing effort which began in the 1990s (Gallopín et al. 1997). The scenarios have changed name and number over time, but the current set involves four major scenarios: fortress world, market forces, policy reform, and great transition (Raskin et al. 2002). Figure 4.1 is a graphical representation of these alternative futures.

I've arranged these scenarios along two axes, both of which refer to aspects of the basic societal world view or vision. The vertical axis contrasts a world view based on GDP growth as the path to progress against a focus on a broader conception of wellbeing. The horizontal axis contrasts a focus on individualism with a focus on community. That corresponds to the four scenarios described briefly here:



Figure 4.1. A pictorial depiction of the 4 Great Transition Initiative scenarios
<https://greattransition.org>

The **fortress world scenario** is a variant of a broader class of barbarization scenarios, in the hierarchy of the Global Scenario Group (Gallopín et al. 1997). Barbarization scenarios envision the grim possibility that the social, economic, and moral underpinnings of civilization deteriorate,

as emerging problems overwhelm the coping capacity of both markets and policy reforms. A focus on individual wellbeing at the expense of the larger community leads to growing inequality, the need for more police and security personnel to defend the individuals who are claiming most of the economic output.

The **market forces scenario** is a story of a market-driven world in the twenty-first century in which demographic, economic, environmental, and technological trends unfold without major surprises relative to unfolding trends. Continuity, globalization, and convergence are key characteristics of world development – institutions gradually adjust without major ruptures, international economic integration proceeds apace, and the socioeconomic patterns of poor regions converge slowly toward the development model of the rich regions. Inequality is still high, climate change and ecosystem destruction are not addressed, but growing GDP is used to tamp down resistance and focus attention on growth. This is essentially a ‘business as usual’ scenario.

The **policy reform scenario** envisions the emergence of strong political will for taking harmonized and rapid action to ensure a successful transition to a more equitable and environmentally resilient future. It explores the requirements for simultaneously achieving social and environmental sustainability goals but still under high economic growth conditions like those of market forces. This is essentially the ‘green growth’ scenario.

The **great transition scenario** explores visionary solutions to the sustainability challenge, including new socioeconomic arrangements and fundamental changes in values. This scenario depicts a transition to a society that preserves natural systems, provides high levels of wellbeing through stable material sufficiency and equitable distribution, and enjoys a strong sense of local solidarity.

An interactive website (<https://greattransition.org/>) allows users to visualize and explore the scenarios. The descriptions of these scenarios in the published books and websites are the most extensive of the scenario studies mentioned here, and probably the most extensive of any existing scenario exercise. The status and trends of over 40 variables are plotted for each scenario, including several variables related to ecosystem services (i.e., CO₂ emissions, water use, and forested area)

and an overall quality of development index that is similar in structure to the Genuine Progress Indicator (GPI) and other indices of societal well-being.

4.3 The UN Sustainable Development Goals as a First Step

As noted earlier, the SDGs represent the first time in human history that all countries have agreed on a detailed set of goals focused on overall societal wellbeing, rather than merely growth of GDP and material consumption (even though GDP growth is still one of the goals). They address some of the systemic barriers to sustainable development the need for balance between, the three dimensions of sustainable development – social, economic, and environmental – and their institutional/governance aspects. As discussed earlier, the SDG process provides an opportunity to trigger systemic change to build a sustainable future in an increasingly interconnected world. However, with 17 goals, 169 targets, and over 300 indicators proposed, the SDGs provide diluted guidance at best. This is to be expected, given the complex political process that led to the SDGs; so far it has merely opened the door.

There is still much additional work needed to elaborate (1) the complex interconnections between the goals; (2) the means-ends continuum toward an overarching goal; and (3) a ‘narrative of change’ to describe the societal shifts and policy reforms necessary to achieve the SDGs and how this could actually happen within existing socioeconomic and geopolitical circumstances (Costanza 2014; Ostrom 2014). The SDGs need an overarching goal with clear metrics of progress toward that goal that are geared to integrate the sub-goals (Costanza et al. 2015). They also need a more detailed elaboration of what the world would look like if the SDGs were actually achieved. What would people’s lives be like in SDG world and how would they be different and better than they are now?

A world where the SDGs have been achieved shares many (if not most) of its characteristics with the great transition scenario discussed earlier. So how can we build on this confluence to engage the global public in building the shared vision of the world we all want to overcome our addiction to the growth at all costs paradigm?

Creating a truly shared vision is one of the most powerful ways to motivate change in complex organizations at multiple scales. The SDG process, discussed above is an historic step in creating such a shared global vision. A major question is: How can we build on the SDG process to engage the global public in building this shared vision? We now have the technology to make this process feasible at multiple time and space scales, given that the internet allows real time communication with almost everyone on the planet. We are certainly not using this technology effectively for the purposes of building shared visions yet, but we could. We could use it to carry out massive public opinion surveys about alternative futures (Chambers et al. 2019), or deliberative processes involving broad swaths of the population to build and refine the vision. We can also more fully engage the arts and film community to create visions of the world in formats people can relate to. Imagine, for example, a blockbuster film with the same set of characters interacting in four alternative futures. These kinds of stories are the missing element in allowing people to think about alternative futures and build consensus on the future we want.

While multiple futures are possible and plausible, the goal of a ‘sociotecture’ (societal design) of intentional change would be to design futures that are both sustainable and desirable while also recognizing evolutionary dynamics. The goal of a theory of intentional change is to bring to bear an integrated understanding of cultural and biological evolution to allow the transitions to desired ends to be made in positive, adaptive ways. A cultural evolutionary theory of change is to the design of intentional futures as a theory of structural statics is to architecture—a necessary understanding that allows the construction of viable alternatives. Elinore Ostrom’s design principles (Wilson et al. 2013b) are one way of thinking about how to create sustainable and desirable futures. They point the way to a sociotecture of intentional change and help us think about the design of rules, norms, and institutions for managing the commons that will be both sustainable and desirable.

Making the transition to the world we want will not be easy. In many ways we are locked-in, trapped, and in a very real sense ‘addicted’ to the current regime. As discussed above, growing knowledge of how to overcome individual addictions may help here (Miller and Rollnick 2002; Carroll et al. 2006; Costanza et al. 2017). We know that directly confronting addicts with their problems in an effort to scare them into changing leads to denial and is often counterproductive.

And yet this is exactly what we are doing at the societal level with issues like climate change and the negative effects of GDP growth. At the individual level, developing a positive vision of a better life is often the most effective first step in what we have to recognize as ongoing therapy. This is what scenario planning and envisioning can provide at the societal level. In cultural evolutionary terms, we can produce positive hypothetical symbotypes to expedite and direct the process. So, we need not only a science and theory of intentional change, but also a sociotecture and therapy integrated with it to develop and test alternative models and visions of the world we want and to help us get there. It is impossible to predict the future, but we can help guide and model the evolutionary process to create the future we want.

One of the main challenges with this approach is scaling up. Scenario planning and envisioning exercises are very effective tools to build a shared vision among the small number of participants usually involved in these exercises. But how do we engage the whole society in this exercise? One approach is to build the scenarios or vision with a small group of representative stakeholders and then communicate the scenarios or vision to the larger community in ways that engage them in the discussion and consensus building. As an example, below is a fairly detailed description of a possible future. It was developed in a workshop setting and describes the consensus among a diverse group of participants. It is fairly consistent with the Great Transition scenario and the SDGs, but was developed independently of those two exercises. It is evidence, I believe, that a future something like the one described below is what most people on Earth want, and that building consensus around this kind of vision is a key step in the therapy to overcome our societal addiction to growth.

4.4 What Could a Sustainable and Desirable Wellbeing Economy Look Like?

In the previous sections I have sketched out the general characteristics of a sustainable wellbeing world and how it differs from our current society: it is ecologically sustainable, fair, efficient, and secure. Here I develop the implications for the whole system. To build consensus we need to fill in the details in a coherent vision that is tangible enough to motivate all kinds of people to work toward achieving it. Without this coherent, relatively detailed, and shared vision of what a sustainable wellbeing society could look like, there will be continuing limited political will and only dispersed effort to take us from here to there in our theory of social change. The default

vision of continued, unlimited increases in material consumption is inherently unsustainable and undesirable, as I have pointed out, but we cannot break away from this vision until a credible and widely shared alternative is created.

Below, I sketch out one version of such a vision as a starting point.¹⁵ There are several other visioning exercises that have created similar descriptions, including the Great Transition Initiative (www.gtinitiative.org) mentioned above, and the Future We Want (www.futurewewant.org). One of the most compelling recent descriptions of what a positive future could look like is Kim Stanley Robinson's novel "The Ministry for the Future" (Robinson 2020). This kind of engaging narrative description of a positive near-term future and how it could potentially come into being, with all the possible drama and missteps along the way, is an important way to build understanding of the problem and broad consensus about the possibility for a better future. Ultimately, this vision must be shared and further developed through participatory democratic processes, so let me emphasize again that the description below is only an example and a starting point.

To iterate again, the key challenge for humanity to achieve a sustainable and desirable future, is to create a shared vision detailing what we as a global society with many cultures and communities want to sustain, incorporating the central shared values that express our hopes for the future. This vision must incorporate a diversity of perspectives and be based on principles of fairness, respect, and sustainability. But I think it is useful to share the vision below, since I hope it represents a vision that is already broadly representative of the kind of world most people would prefer, if given the opportunity to express their preferences and deliberate broadly on the vision. It is just one version among the many hundreds of such descriptions of a positive future vision that are now out there, but I think that most of these visions share many core elements present within this one.

This draft vision was initially created by a diverse group of participants at a workshop in 2001. I have updated it slightly, but I find from continuing dialogue, personal experience, and emerging literature that it still resonates with what I think most people would want to see in a sustainable wellbeing future. It also shows that it is possible for a diverse group of participants to reach fairly broad but still detailed consensus on the outlines of a preferred future. Doing this at scale is the challenge for using this process as a key step in overcoming our addiction to growth.

This draft vision is divided into five parts: (1) worldview, (2) built capital, (3) human capital, (4) social capital, and (5) natural capital, encompassing the basic elements of the ecological economics framework. This vision is written from the perspective of the year 2050, describing the world we have achieved. But again, think of it as an example and a starting point for the co-creation of a broadly shared vision.

4.4.1 Worldview

Our worldview no longer divides the planet into ‘humans vs. nature.’ People now recognize that humans are a part of nature, one species among many, and must obey the laws and constraints imposed on all of nature. Nevertheless, humans bear responsibility that other creatures do not—we don’t blame deer for overgrazing—yet we expect humans to recognize their ‘overgrazing’ and stop it. We recognize that nature is not something to be subjugated, but instead is something we depend upon absolutely to meet physical, psychological, cultural, and spiritual needs. We recognize that natural resources are scarce and must be invested in. Our goal is to create conditions conducive to healthy life and wellbeing in the broadest sense.

For centuries the worldview of mechanistic physics dominated Western society. Within this worldview, each action has an equal and opposite reaction, and only by studying systems at smaller and smaller scales can we come to fully understand these reactions. As more and more people have come to understand the inherent complexity of ecosystems and human systems, we have come to realize that results cannot always be predicted because effects are not linear but cyclic with feedbacks, and that irreducible uncertainty dominates the provision of life-support services by healthy ecosystems.

An ecological worldview of complexity and indeterminacy, inspired by nature as our mentor—holistic, integrated, and flexible—has replaced the worldview of mechanistic physics. Unfettered individualism is appropriate and even necessary in a world of vast frontiers and unlimited elbow room. Individualism is still extremely important in 2050, but is far more tempered by a concern for the common good. This has led to a system where communities promote individual liberty as long as individual actions do not have a negative impact on the community. Individuals in return

accept that they are a part of society, and it is unfair and illegal (even uneconomic) to impose costs on society for private gain. This attitude was necessary to wean ourselves of our dependence on heavily polluting single-occupancy vehicles, for example.

Further, ever-increasing consumption is no longer considered an integral component of human needs as it was in the early part of the century. People pay attention to their other needs and desires, such as joy, beauty, affection, community, participation, creativity, freedom, and understanding. Building strong community helps us meet these needs, while working ever harder to pay for more consumption deprives us of the time and energy required to fulfil them. Thus, status is not conferred by high incomes and high consumption (individual ends), but rather by contribution to civil society and community ends. With the recognition that consumption beyond limit is not only physically unsustainable but also does little to improve our quality of life, we now understand that a ‘steady-state’ economy—prosperous and fulfilling the full range of human needs, but within planetary boundaries—is our goal – and economy and society based on everyone having just the right amount – what the Swedes call ‘lagom.’ Some countries have had to increase production and consumption to get to this level, while others have been able to reduce unnecessary consumption. A steady-state economy does not mean an end to development; it simply means that we limit the input of raw materials into our economic system and their inevitable return to the ecosystem as waste to a level compatible with the ecological constraints imposed by a finite planet with finite resources. We now live happily and well within the safe operating space of our planet - what Kate Raworth has called the ‘safe and just operating space (Raworth 2017).’ We do not know the precise location of these planetary boundaries, and they are subject to change. Therefore, ‘adaptive management’ has become the guiding principle.

The economy is now powered by our incoming solar energy—direct sunlight captured by solar panels—as well as wind, hydro, and the traditional forms of solar energy capture (agriculture, forestry, and fisheries). Economic production focuses on quality over quantity, on everyone having enough, and on fulfilling employment. Rather than the earlier focus on the production of goods, we now focus on the production of the services provided by goods and how those services are distributed. We do not need cars, we need transportation. We do not need televisions; we need entertainment and information. Goods are only a means to an end—the larger end of sustainable

human wellbeing—and by recognizing this our economy has developed as never before without growing in physical terms.

4.4.2 Built Capital

Built capital is the human-made infrastructure used to meet human needs. Technological advance over the last century has had a large impact on the type of built capital we find in 2050. Different priorities have had as much or even greater impact.

Housing: Communities have been dramatically redesigned to integrate living space, community space, and workspace with recreational needs and nature. Workspace includes the stores that supply our everyday needs as well as production facilities for most of the goods those stores supply. People now live very close to where they work, where they shop, and where they play. The huge cities of the early twenty-first century did not disappear, but they have been dramatically reorganized. Cities are now aggregations of smaller communities in close physical proximity but where each community meets the housing, employment, social, recreation, and shopping needs of those who live there. The ‘20-minute neighborhood’ idea—that all basic services should be no more than a 20-minute walk away—has taken hold as an urban design principle. Natural areas have also made a big comeback in cities. The specifics of community size and design are, of course, determined by local physical and cultural conditions, and there is enormous diversity.

In addition to these very practical aspects, communities have been designed as soul-satisfying spaces that resonate with our evolutionary history. Most communities include natural areas and incorporate parks and other green spaces (though ‘green’ is a misnomer in drier parts of the world, where xeriscaping is the norm), and such spaces also serve as common space for community members. They also foster social interaction, community, and social capital. Rather than something new, this is simply a resurgence of a millennial tradition of settlement patterns.

Because community space is abundant and well designed, private homes are generally smaller (hence cheaper and easier to care for) and are much more energy efficient. Private lawns have virtually disappeared, though lawn-like community green spaces still exist, and private gardens abound. Private gardens in fact meet a substantial portion of community food needs. Walking

and bicycle riding have effectively become the dominant forms of transportation, except in the worst weather. Rapidly increasing energy costs provided the initial incentive, but people then discovered the enormous benefits of such pedestrian communities.

One of the biggest impacts was simply getting people out of their cars. Walking to work, the store, community meeting places, or nature preserves brings people into direct contact with the other members of the community. People walking together in the same direction naturally converse, establishing friendships, informing each other of current events, and discussing issues of relevance to the community. In fact, developing community and social capital has become one of many explicit goals for designing built capital. Modern communities are very healthy places for humans and other species. Invigorating exercise and nurturing social interaction have replaced the stress of hour-long commutes, road rage, and the pollution of vehicle exhaust, improving both physical and mental health. Air quality is very high. Many roads and parking lots have become redundant, and in their spaces stand parks, streams, and greenways, providing clean air, clean water, and healthy recreation, among numerous other vital ecosystem services. The dramatic reduction in impervious areas has reduced flooding and allowed the land and the ecosystems it sustains to filter water, restoring waterways to health.

With scarcer resources, the practice of destroying still useful buildings to build others on the same site has diminished, and stable populations have further decreased the need for new construction. But from time to time new buildings are still required. Ecologically designed ‘living buildings’ have become the norm for new construction.

Transportation: As already mentioned in the description of communities, single-occupancy vehicles are now rare. The dominant modes of transportation within communities are walking and bicycling; between communities people use high-speed rail. Public transportation is important within communities and is designed to transport goods as well as passengers, making it convenient for grocery shopping and the like. Because so many people use public transportation, it is abundant and extremely convenient. Rail is common, but so are electric buses and taxis. ‘Traffic’ is a thing of the past, and public transportation gets people around much more quickly than private vehicles used to, at a fraction of the cost. Dramatically fewer vehicles on the roads has also cut maintenance

costs to a fraction of what they were, and new roads are unnecessary. Some people still own private vehicles, but these vehicles are expensive and their owners pay a higher share of costs of road-maintenance costs. Most communities have mainly electric cars, including ZipCars (car sharing programs) available for rent when private transportation is absolutely required. When not being driven, these cars provide electric energy storage.

Energy: Renewable resources now meet virtually all of the world's energy needs. The conversion from hydrocarbons was facilitated by continuous increases in efficiency of energy use, combined with appropriate full-cost pricing of all energy sources, including environmental and health costs and risks of the full fuel cycle. Photovoltaic tiles are ubiquitous roofing materials, and roofs alone meet over half the world's energy needs. Large-scale hydropower has decreased in importance as more and more rivers are restored to their natural states, but low-impact mini-turbines are increasingly common. In spite of the abundance of non-renewable, non-polluting forms of energy, energy-efficiency research is still very important, and advances continue to be made in both renewable-energy supply and demand management. The 'smart grid' has done much to help this transition. In many places municipalities and/or cooperatives now locally manage the generation, supply, and distribution of renewable energy resources, keeping prices affordable and ownership democratically controlled.

Industry: Industry has changed dramatically. Industrial design is now based on a circular economy, with closed-loop systems in imitation of nature, where the waste product from one industry becomes the feedstock of the next. Wasted heat from industrial processes is used to heat nearby homes and workspaces. When possible, industrial production uses local materials to meet local needs, and wastes (the few that are not put to use) are processed locally. Most smaller-scale industries consist of a mix of locally owned proprietary firms and smaller corporations on the one hand, and cooperatives and new community-based commons institutions on the other (Alperovitz 2011). While these characteristics do not always maximize productive efficiency, the benefits in terms of social capital and community wellbeing far outweigh the costs.

First, local production dramatically reduces transportation costs, helping to compensate for sometimes-higher production costs. Second, it makes communities directly aware of the

environmental impacts of production and consumption. Costs of waste disposal are not shifted elsewhere. Third, industries are more a part of their communities. Most of them are locally owned by the workers they employ, by new cooperative and municipal institutions, and by the people whose needs they meet. Rather than simply trying to maximize returns to shareholders, industries strive to provide healthy, safe, secure, and fulfilling working conditions for workers. Those who produce goods and those who consume them know each other, so workers take particular pride in the quality of what they produce.

Fourth, the decentralization of the economy means that the economy as a whole is much less susceptible to business cycles, increasing job and community stability—a central requirement of local sustainability planning in general. Fifth, an emphasis on local ownership and production for local markets has reduced the importance of trade secrets and patents; competition has been replaced to some extent by cooperation.

Sixth, a significant number of larger firms are structured as public and quasi-public enterprises jointly owned with the workers involved. They are designed on the one hand, to help target and anchor jobs to help achieve local stability, thereby also supporting sustainability planning, and on the other, to be less dependent on very short-term profit considerations necessary to meet stock market expectations that foster excessive growth.

Finally, decreased competition has led to a dramatic decrease in the size of the advertising industry. This means that money once spent on convincing people to buy one brand over another is now spent on making those products better—or simply not spent, making those products more affordable.

Markets and competition, of course, still play an important role. Industries are free to sell to distant communities, though having to pay the full cost of transportation provides a natural barrier. Still, this threat of competition means that communities need not rely solely on the good will of local industries to keep prices low. Trade secrets play less of a role in competition than in the past due to the resurgence of sharing information, which also limits corruption and lobbying. The development of open-source software shows that freely sharing knowledge can lead to more rapid

technological innovation than the profit motive provided by privatizing knowledge through patents. The problems with patents have become more obvious with the tremendous growth in green technologies, which have proven themselves capable of slowing climate change, reducing pollution, and decreasing demands on scarce ecosystem resources, but only by being used on a large scale. Patents on these technologies (and the accompanying monopoly profits) would mean that much of the world would be unable to afford them. The global community has come to realize that it cannot afford the price of people not using these technologies.

Fortunately, the free flow of information has led to impressive new innovations, often making patents obsolete. Some industries retain substantial economies of scale, using fewer resources per unit when producing in enormous factories, such as in the case for solar cells. Large corporations still exist to produce such goods, but many are structured in ways that broaden representation on boards and in certain cases entail public ownership or joint public/worker ownership. Corporate charters have largely changed to the ‘benefit corporation’ model that explicitly acknowledges a firm’s responsibility to produce a social benefit rather than merely a private profit.

4.4.3 Human Capital

Human capital was defined in the early part of the century as the practical knowledge, acquired skills, and learned abilities of an individual that make him or her potentially productive and thus equip him or her to earn income in exchange for labour.

The definition of human capital itself has changed—no longer emphasizing solely productivity in terms of income exchanged for labor. The primary emphasis instead is now on knowledge, skills, and abilities that make people productive members of society. The goals of society are far more than simply earning income. Education is now integrated into everyday life, not simply something we do for a few hours a day before we grow up. And it is not always confined to classrooms—schools are an institution, not a physical place. Nature offers us an amazing laboratory every time we step outside, and is valued every bit as much in urban settings as in rural. This is even more true in 2050, when our communities are designed to maximize exposure to healthy ecosystems. Education about civic responsibilities and roles is heavily stressed, and such topics are taught by direct exposure to the decision-making process or hands-on participation in activities that benefit

the community. Youth are schooled in civic responsibility by actively participating in the community. And what better place to learn skills required for economic production than at the workplace? Apprenticeships are now an integral part of the learning process. Technology also plays an important role in education. Online learning environments are used where appropriate but by no means replace direct interaction. Education is now an interactive balance between online tools and content acquisition, and on-the-ground problem solving in the community.

Education and science no longer focus solely on the reductionist approach, in which students are only taught to analyze problems by breaking them down into their component parts. While the reductionist approach and analysis still play an important role in education, the emphasis is now on synthesis—how to rebuild the analyzed components of a problem into a holistic picture to solve problems. Synthesis is critical for understanding system processes, and system processes dominate our lives.

Beyond analysis and synthesis, learning also now emphasizes communication. Researchers skilled at communication can more readily share ideas, and ideas grow through sharing. Workers skilled at communication can work together to solve production problems. Citizens skilled at communication can contribute to the ever-evolving vision of a sustainable and desirable future that is the motivating force behind policy and governance. Citizens are also able to communicate their knowledge with each other, so that education, livelihood, family, and community become a seamless whole of lifelong learning and teaching, everyone simultaneously student and teacher.

Education also now emphasizes much more than just scientific understanding of the material world. Critical thinking and research are important, but so are creative expression and curiosity. Knowledge and science are not portrayed as value-neutral endeavors; students now learn that the very decision of what to study is a moral choice with broad implications for society. The goal of education is to cultivate wisdom and discernment, to cultivate the emotional maturity to allow responsible decision making in every type of human endeavor.

The whole notion of work has also changed, and the word itself has lost the connotation of an unpleasant chore. Work hours have been reduced through work sharing and more generous leave

policies to allow for a more reasonable balance of family and work life. Moreover, people now recognize the absurdity of applying technology to the problem of producing more goods to be consumed during leisure time regardless of the drudgery involved in the production process itself. Instead, to recruit the needed workers, industry is now forced to redirect some of its technological prowess toward making work itself a pleasurable part of our days that engages both mental and physical skills. A typical job now involves far more variety, not only to make work more exciting and interesting, but also to take advantage of the full range of a person's skills. There is less distinction between what would have earlier been considered gainful employment and volunteer work.

Everyone participates in civil society, both in decision making and in maintaining the public space. This is not an onerous chore, but a pleasurable time for socializing with neighbours and community. Nor does it take time away from private lives since the typical work week in traditional jobs now averages only 20 hours. Education deemphasizes the old 'more is better' mindset and promotes a greater understanding of the linkages between economic production, nature, human development, and society. This has made people more aware of the true costs of excessive consumption.

With years of technological advance and diminished 'needs,' society is now able to provide a satisfactory living wage to all who work and to meet the basic needs of those who do not. Participation in the various types of work is expected and supported, but not forced. Because work is now more a fulfilling experience than an onerous necessity, there is little resentment of those who do not work but rather a feeling of concern that these people are not developing their potential as humans. Living in more tightly knit communities where social goals are actively discussed, people now better understand the importance of their work and feel greater obligation to contribute to the common good. Remuneration for work has been restructured to provide the greatest awards to those who provide the greatest amount of service to the community, such as teachers, childcare providers, and so on.

Human capital is also directly related to human populations. The population has stabilized at a level compatible with the safe operating space of our planet.

4.4.5 Social Capital

Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions. Social capital is not just the sum of a society's institutions, which underpin that society; it is the glue that holds them together.

The dominant form of social capital in the employment and economic sphere in the early part of the century was the market. The interaction between employer and employee was that of buying and selling labor. In this model, employer loyalty exists only as long as the continued employment of the employee increases profits. Employee loyalty exists only as long as no other job offers a greater salary or better fringe benefits (which may include location, working conditions, etc.). The interaction between producer and consumer is even more market-based in this model. People buy a product only as long as it is perceived to provide the greatest value in monetary terms, though admittedly advertising may play as large a role in shaping perceptions as the actual price and quality of the product.

In 2050, worker and worker/community ownership of many industries and local production for local markets has changed these relationships. Such enterprises logically pay more attention to worker and community well-being than enterprises driven by the need to generate shareholder profit. Well-being, of course, includes profit-shares but is increased by working conditions that are healthy, that stimulate creativity, and that create feelings of participation, community, and identity. While not all enterprises are owned in these ways, when a significant percentage of enterprises began to offer these conditions, they put pressure on the others to do so as well. In the absence of strong social capital, local production for local markets can be a disaster. In many cases, it might be inefficient to have a number of firms providing similar products for a small community. This could lead to monopoly provision of certain goods. If the market had remained the dominant form of social capital driving interactions between producers and consumers, high profits and poor quality would have resulted. However, when worker-owners also live in the local community, they have to directly answer to their neighbors for both the price and quality of what they produce. High-quality production is a source of pride, while low quality and high prices are

perceived as incompetence and laziness, decreasing the individual's social standing in the community.

Local currencies also now contribute significantly to locally based production and consumption. Such systems existed in many communities in the early part of the century, such as in Ithaca, New York (www.ithacahours.org) and the Berkshires in western Massachusetts (www.berkshares.org). These currencies are backed only by trust that other members of the community will accept them in exchange for goods and services, and therefore require strong social capital to function. They also build social capital every time a community member accepts the currency. They are virtually immune to national and global economic instability and provide communities with greater autonomy.

For local markets to work, social capital must be strong. As discussed in the section on built capital, the very physical structure of communities now works to create that social capital. Abundant community spaces, parks, and recreation areas stimulate social interaction, build friendships, and generate a sense of responsibility toward neighbors and community. With single-occupancy vehicles almost gone and people living in smaller communities, just getting from place to place brings people in close contact with their neighbors.

At the beginning of the century, public transportation was primarily found only in large cities, and fellow passengers were strangers, not neighbors. Under these circumstances, public transportation did little to build social capital. But this is no longer the case in 2050. Some neighborhoods coalesced around different ethnicities and cultures, and these too served as sources of social capital. However, the world has rid itself of the racism, sexism, regionalism, and other prejudices that were all too prevalent earlier, while recognizing the value of diversity in all its varieties. People have more time for family, and family life is characterized by more balanced gender roles.

The process of government itself now creates social capital. Many countries are no longer weak representative democracies, but strong participatory ones. In a participatory democracy, the people must discuss at length the issues that affect them to decide together how the issues should be resolved. In the old world—of high-pressure jobs, little free time, and large communities of

anonymous strangers—this approach to government seemed impractical, unwieldy, and too demanding. Now, with smaller communities of neighbours, a far shorter work week, and engaged, active citizens, participatory democracy is a privilege of citizenship and not an onerous chore. Of course, this required that civic education form an essential part of education and development of human capital from childhood on. This approach to government is particularly effective at the local level. As citizens come together in regular meetings to discuss the issues and work together to resolve them (even when substantial conflict exists), it creates strong bonds of social capital and plays an essential role in forging a sense of community.

Government, of course, implies action, and action implies purpose. The purpose must be defined by the people, who in these civic meetings also forge a shared vision of the future to guide their actions. This vision is not static but must adapt to new information and new conditions as they emerge. Of course, not all issues can be decided on the local level. Institutions are required at the scale of the problems they address. It is at the local level where people will feel the consequences of ecosystem change, for example, but causes may be distant, perhaps in other countries. On the national level it is not feasible to bring together millions of people to discuss the issues and decide on actions, so some form of representation is required. But representatives are now chosen through direct participation by people to whom they have strong social ties and obligations, so these representatives are far more likely to truly represent their communities and not some large corporation that funds their rise to power. Additionally, new intermediary representative institutions on the regional scale exist to bridge the gap between local and national governance.

Social capital, the glue that holds society together, also include basic moral values and ethics such as honesty, fair dealing, care for the disabled and vulnerable, and a common set of cultural practices and expectations that for the majority do not have to be enforced by law. Both markets and government bureaucracies fail without these common values. These values are rooted in community and nurtured by the religions of the world and other systems of thought and practice. Social capital has deep roots, and has been depleted in many areas.

4.4.6 Natural Capital

Natural capital consists of all the world's ecosystems - their structure and processes that contribute to the well-being of humans and every other species on the planet. This includes both mineral and biological raw materials, renewable (solar, wind and tidal) energy and fossil fuels, waste-assimilation capacity, and vital life-support functions (such as global climate regulation) provided by well-functioning ecosystems.

The absolute essentiality of natural capital is now so completely accepted that it is taken for granted that we must protect it if we are to survive and thrive as a species. Any schoolchild is able to tell you that you cannot make something from nothing, so all economic production must ultimately depend on raw material inputs. Economic production is a process of transformation, and all transformation requires energy inputs. It is equally impossible to make nothing from something, so every time we use raw materials to make something, when that product eventually wears out, it returns to nature as waste. It is therefore incumbent upon us to make sure that those wastes can be processed by the planet's ecosystems or technical systems we have designed. Waste-absorption capacity is only one of many critical but still scarcely understood services provided by intact ecosystems. These ecosystem services include regulation of atmospheric gases, regulation of water cycles and the provision of clean water, stabilization of the global climate, protection from ultraviolet radiation, and the sustenance of global biodiversity, among many others. Without these services, human life itself would be impossible.

By 2050, we have made substantial efforts to protect ecosystem services. But uncontrolled human economic activity still has the capacity to damage them sufficiently to threaten our civilization. Obviously, well-functioning ecosystems are composed of the same plants and animals that serve as raw-material inputs to the economy; and, all else being equal, increasing raw-material inputs means diminished ecosystem services. Extraction of renewable raw materials directly diminishes ecosystem services, while the extraction of mineral resources unavoidably causes collateral damage to ecosystems. Ecosystem services are also threatened by waste outputs. While waste outputs from renewable resources are, in general, fairly readily assimilated and broken down by healthy ecosystems, ecosystems have not evolved a similar capacity to break down waste products from mining and industry, concentrated heavy metals, fossil fuels, and synthesized chemicals. In

2050 we have dramatically decreased our reliance on these slow-to-assimilate materials like plastics.

Natural capital is also economically important because it provides so many insights into the production process. The more we have learned about how nature produces, the more we have realized the inefficiency, toxicity, and wastefulness of former production techniques. It has now become a standard approach when seeking to solve a production problem to examine healthy ecosystems and strive to understand how they ‘solve’ similar problems.

A recognition and high level of awareness of the importance of natural capital have led to dramatic changes in the way it is treated. The negative environmental impacts of non-renewable resource use, even more than such materials’ growing scarcity, have forced us to substitute them for renewable resources, reversing the trend that began with the Industrial Revolution and making renewables more valuable than ever. Passive investment in natural capital stocks—that is, simply letting systems grow through their own reproductive capacity—is insufficient to meet our needs. Active investment is required. We are actively engaged in restoring and rebuilding our natural capital stocks by planting forests, restoring wetlands, and increasing soil fertility. The former philosophy of natural capital as free goods provided by nature has disappeared. This change has required and inspired significant institutional changes. For example, notions of property rights to natural capital have changed. Most forms of natural capital are now recognized as intergenerational assets. For example, legislation in many countries now explicitly prohibits the extraction of renewable resources beyond the rate at which they can replenish themselves, which would leave future populations dependent for survival on non-renewable resources in danger of exhaustion and for which no substitutes exist.

Property rights to land are explicitly extended to future generations, and there are steep fines or even criminal penalties for purposely leaving land in worse condition than when it was purchased. While ecological factors determine the total amount of natural capital that we can safely deplete, market forces still determine how that natural capital should be allocated. In addition to these fixed limits on resource use, green taxes now force both consumers and producers to pay for the damage caused by resource depletion and waste emission. When these costs are unknown, those

undertaking potentially harmful activities are forced to purchase bonds or insurance that guarantee reimbursement to society for whatever damages do occur. These policies have dramatically increased the costs of degrading natural capital. As a result, most countries are rapidly weaning themselves from dependence on non-renewable resources, having developed renewable substitutes for most of them. Many countries are competing to become global leaders in green technology. While we once relied on hydrocarbons as a feedstock for many industrial processes, we now rely heavily on carbohydrates produced by plants. This allows us to build nontoxic, biodegradable carbon polymers from CO₂ extracted directly from the atmosphere. As this technology came into its own, it helped to stabilize and even reduce atmospheric CO₂. Whether we will be able to continue to reduce global warming is still an open question, but one with growing cause for optimism.

Our understanding of ecosystem function has progressed dramatically and we continue to discover new ecosystem services. Yet for every puzzle we solve, we uncover three others. And we remain unable to accurately predict impacts of human activities on specific ecosystems, in part because of ongoing changes induced by continued global change. While the rate of warming has slowed, ecosystems are still slowly adapting to the impacts of that warming. The precautionary principle therefore now plays a critical role in deciding how we treat the environment when there is doubt over the potential impact of resource extraction or waste emissions on ecosystem goods and services. We choose to err on the side of caution. Continuing ecological-restoration efforts have begun to reverse the massive degradation that took place from 1950 through 2025, but continued global warming still threatens dangerous disruptions in ecosystem services. In keeping with the precautionary principle, we now consider it an imperative to develop extensive ecological buffers and to take the idea of planetary boundaries seriously.

Finally, let me remind the reader that this vision is an example and a starting point for broad discussion and consensus building. In addition, it is certainly not the only such vision out there. But I think it contains many of the elements of similar visions. So there is already a lot of overlap and consensus to build on. However, to be an effective societal therapy in a way analogous to Motivational Interviewing, we need to engage the larger society in building a truly shared vision of a sustainable wellbeing future. That is a huge challenge and will require creative new

techniques. One thing that may make this possible is the recent development of the ability to communicate with everyone on Earth in real time. This is a very recent development in human history, but this technology could be used in creative new ways to build consensus, rather than division.

4.4.7 Is This Feasible?

But first, let's try to answer a question that many people will probably have after reading the description above. This all sounds great, they might argue, but how could it ever happen? Isn't it all just pie in the sky thinking that is not really feasible in the real world? There are a couple of answers to this question. The first is best described in the work of Andrew Simms (Simms 2013) who takes us on a tour of all the places on Earth where the kinds of things described in the vision above already exist and are doing well – they are just not all happening in the same place. There are also many small-scale examples of sustainable communities that can serve as models. Many groups and communities around the world are involved in building a new economic vision and testing solutions. These are described later in Chapter 6.

The problem is that we live in a globalized world addicted to fossil fueled economic growth and it is difficult to generate larger scale examples that are independent enough from the world system to actually try something significantly different. In a sense, we need a total 'regime shift' to a new system (Beddoo et al. 2009a) and that often requires at least a partial collapse of the existing order combined with the societal therapy described here. Nevertheless, even though the world is still largely enmeshed in the conventional economic paradigm, several cities, states, regions, and countries are further along the path I outline than others. The Wellbeing Economy Alliance (WEAll) and the Wellbeing Economy Governments (WEGo), described in the following chapters are trying to pull together these initiatives into a global movement.

Once we have developed consensus on the world we all want, the transition will be a process of ongoing societal therapy and directed cultural evolution. To direct this process, we need to generate, communicate, and broadly discuss the many smaller-scale experiments that embody the vision and policies I have articulated.

