RESILIENCE, COMMUNITY ACTION AND SOsocietal TRANSFORMATION

People, Place, Practice, Power, Politics and Possibility in Transition

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3.3. Shedding some Light on the Invisible: the Transformative Power of Paradigm Shifts

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> *"A transition to sustainability demands profound changes in understanding, interpretative frameworks and broader cultural values, just as it requires transformations in the practices, institutions and social structures that regulate and coordinate individual behaviour. In this context, it is essential to get to the position where people, industry and governments can easily distinguish between objective facts and opinions that are presented as facts to advance particular interests, and rely on the former to make informed decisions."*[194]

In order to make sense of the world humans create ideas and stories about why they are here, what the purpose of their life-journey is, and how to relate to their human and natural environment. The results are individual mindsets that lie at the heart of identities, and social paradigms that structure socio-political development processes. The latter include widely accepted common sense, canonized knowledge, and cultural narratives enveloping human role definitions and cooperation agreements. They in turn are reified: concretizations of ideas and stories that become structural or even material features of the context in which future thinking, observation and being take place. Thus, subjective ideas and intersubjective stories or narratives are intricately linked with the 'objective'world. They can be a source of vision, innovation, creativity and flourishing progress – and a source of mental barriers, strategic power or even forceful domination.

Understanding this structural-material impact of ideas and how it shapes what could be called the 'patterned freedom' of human development lies at the core of the 'reflexive' social sciences. Reflexivity is a uniquely human capacity that enables people to become aware of the biasing forces and effects of socialization and to identify where institutional path dependencies and guiding stories drive societies along development routes that are not

194 UNEP Global Environmental Outlook 5 Report, 2012, p. 447.

Figure 3.3.1 – *Signpost in Buthan. Credit: Maja Göpel.*

(any longer) in line with overarching goals and aspirations. Assessing the underlying assumptions and unstated ideas upon which social processes and institutions have been built, justified, maintained and adapted empowers us to break free from them if necessary. Reflexivity as an empowering and emancipating activity therefore forms a core of strategic engagement for changes to societal structures and institutions that have been set up and form 'reality' today. The World Social Sciences report 2013 coined the term 'futures literacy' when discussing leverage points for deeper and wider system changes for sustainable futures:

> *"The complexity of these processes of transformation raises a number of questions, most notably about people's capacity to imagine futures that are not based on hidden, unexamined and sometimes flawed assumptions about present and past systems. 'Futures literacy' offers an approach that systematically exposes such blind spots, allowing us to experiment with novel frames for imagining the unknowable future, and on that basis, enabling us to critically reassess actions designed in the present."*
> (World Social Sciences Report 2013, p.8)

This paper argues that uprooting some of the hidden, unexamined and quite flawed assumptions created by neoclassical economics and its embedding in culture and social institutions is a transformative leverage point for translating sustainability visions and commitments into reality. Meanwhile, futures literacy also means exposing where potentially radical visions and ideas for future developments are successfully re-framed and co-opted into 'old' neoclassical paradigm and development patterns, dissolving their potentially transformative edge. Sustainable development is the main example discussed here; as discussed elsewhere in this collection, the same is increasingly true for resilience.

The structure of the paper is as follows: a brief introduction to the original definition of sustainable development in 1992 precedes a rough outline of why the neoclassical economic paradigm cannot provide any meaningful insight into how this agreed goal can be achieved. Tying this analysis back with research on transitions in complex systems it then combines the multi-level-perspective (MLP) on societal change with Gramscian hegemony theory on leading with least resistance to argue that replacing the neoclassical mindset or paradigm is a high leverage point for system transformations towards sustainability. The outlook briefly summarizes some approaches from alternative sustainability economy movements that tackle the identified blind spots in neoclassical economics head-on. In a first assessment they show a surprisingly high degree of commonality in their ideas, stories and governance solutions that could shape into a new economic paradigm and mindset suitable to coordinate diversified initiatives into a political movement or Gramscian 'common will' for structural change.

3.3.1. Sustainable Development: Which Vision and Goals?

In 1987 the United Nations appointed the World Commission on Environment and Development (WCED) and published its path breaking report on sustainable development. It highlighted how the 20th Century's path of economic development had heavily damaged nature while still keeping a majority of people in poverty. The call was to replace this path with 'Sustainable Development' development which, "[M]eets the needs of the present without compromising the ability of future generations to meet their own needs."[195] To specify this new vision, the report highlighted two key points for attention and intervention. These were "[T]he concept of 'needs' in particular the essential needs of the world's poor," to whom, it argued, "overriding priority should be given," and, "the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

Sustainable development has not been achieved due to the fact that the overarching development narrative and its underlying neoclassical economic assumptions were not seriously challenged.

In 1992 the Rio Declaration of the United Nations made sustainable development the overarching policy principle of international cooperation. Today's statistics provide ample evidence that sustainable development has not been achieved. I will argue here that this is at least partly due to the fact that the overarching development narrative and its underlying neoclassical economic assumptions were not seriously challenged. Rather than being weakened

195 WCED, 1987, Our Common Future, Chapter 2, Paragraph 1, online at: *http://www.un-documents.net/our-common-future.pdf*

by challenges like natural limits to growth or unfair distribution of its impacts and the links between market liberalization and increased inequality, this paradigm has shown a remarkable ability to reinforce itself by incorporating them. Historically, such co-optation was helped by the collapse of the Soviet Union around the same time, leading to declarations of "The End of History" (Francis Fukuyama). Also, powerful promoters of this storyline and paradigm are usually spared from suffering the consequences of its implementation: it provides a terrific rationale for feeling comfortable with being much better off than others.

3.3.2. Neoclassical Economic Paradigm: Which Insights for Sustainable Development?

A paradigm and its associated societal narratives rest on some core ideas or concepts. These are more than simple flashes of thought, a mere slogan or a buzzword. According to institutional political economists Morten Boas and Desmond McNeill, such an idea:

> *"[H]as some reputable intellectual basis, but... may nevertheless be found vulnerable on analytical and empirical grounds. What is special about such an idea is that it is able to operate in both academia and policy domains."*[196]

Providing the language and sense-making that people apply in order to govern their own existence in the world, ideas also become part of the common sense and narratives according to which collaboration is set out and institutions are designed.

Looking at what the narrative of neoclassical economics has offered to make the sustainable development vision become reality one should not be too surprised that it has not come round: in its analytical concepts or core ideas this paradigm has lumped all human needs – the one key point in the sustainable development definition - into one undifferentiated concept of 'utility maximization'. It is regarded as a fundamental universal law or human condition that actors selfishly, insatiably and rationally pursue the never-ending maximization of pleasure. All other concepts and explanations stem from this core idea, and the prime source of pleasure is considered to be consumption.

'Utility maximization' is regarded as a fundamental universal law or human condition that actors selfishly, insatiably and rationally pursue the never-ending maximization of pleasure, and the prime source of pleasure is considered to be consumption.

196 Desmond McNeill and Morten Boas, 2004, Global Institutions and Development. Framing the World? London: Routledge, p. 1.

Unsurprisingly, according to neoclassical economics, the natural best development path for these 'representative actors' is one of eternal growth in consumption and therefore production: utility and needs satisfaction, or happiness, will then keep on rising forever as well. The most efficient and just institution to bring selfish actors into the cooperation necessary for production and exchange processes are markets in which supply and demand are matched through prices: 'freely' negotiating actors end up signing 'voluntary' contracts in which everyone attempts to get the best cost-benefit deal for him- or herself.

Each price therefore indicates 'willingness to pay' and provides a handy indicator of the utility created by a particular good or service: selfish people only pay as much as they really value something. Taken to the level of explaining entire economies and their development we find the origin of the third universal law, that of equilibrating competitive markets: every product finds a buyer once the price is right and human needs will therefore steer production in the right direction.

Figure 3.3.2 – *Traffic Jam. Credit: Gesa Maschkowski.*

Since this paradigm looks primarily at the point of decision-making but excludes the context in which it takes place (e.g. the distribution of what people can offer in the 'free agreements', what the content of these capacities are, or which ends they serve) it includes no concept of power. In the socio-cultural domain of sense-making it easily translates into a discourse that particularly benefits comparatively wealthy groups or individuals: market competition drives people to highest performance and thus the revenue a particular skill generates in the market is a just expression of the social value of this person's contribution. If people do not manage to get a return for their offerings it is their own deficiency rather than anything else: they did not try hard enough to offer something desirable, did not provide solutions for the needs of people.

In these equations it is possible to completely eradicate other forms of life as long as overall economic output keeps on rising: environmental and social damage remain invisible as long as they do not register in market prices and what is actually traded remains invisible in this price--based utility measurement.

With reference to respecting the laws of nature and their ability to sustain satisfaction of needs – the second key point of the sustainable development definition – the equilibrating market will also do the trick. Once increasing scarcity in natural resources drives up their prices, smart creative entrepreneurs will come up with alternatives to generate the same consumption options from cheaper sources or with different technologies. The way the environment was 'integrated' with economics (a central demand from the Brundtland report) was to internalize nature into abstracted cost-benefit equations. The solution was found by including prices of resource units in calculations of production costs and therefore steer usage in a sustainable direction – or rather, in a direction in which resource destruction does not compromise human consumption.

In these equations it is possible to completely eradicate other forms of life as long as overall economic output keeps on rising: environmental and social damage remain invisible as long as they do not register in market prices and what is actually traded remains invisible in this price-based utility measurement. Only money flows or 'exchange values' register in the calculations and the concept of 'capital substitutability' explains that this monetary wealth can be transformed into anything else – including somehow uncomplicated environmental restoration should humans really not succeed in finding useful substitutes for certain resources. Since therewith no limits to economic growth exist, socially everything is fine as long as some money is invested in education so that people become more successful in selling their value in the markets.

Figure 3.3.3 – *Trash at the Beach. Credit: Gesa Maschkowski.*

What this paradigm therefore leaves unanswered is the core of the sustainable development vision:

- How can we prioritize the needs of the poorest in a meaningful way if we do not differentiate use value of goods and services for healthy existence for all from the expression of exchange value in pricing mechanisms that are silent about what they stand for? Expressions of increased wealth like housing bubbles, astronomical expenditure on abstract pieces of art and fun rides to Mars have the same apparent 'utility gain' as providing food, shelter and healthcare to the poorest.
- How do we know if we risk overexploiting even renewable resources if we only look at the flows that register in markets and not at remaining stocks and the complex dynamics of their reproduction? Every alternative solution needs resources and transmission structures as long as humans are not directly converting solar energy into all they need for survival.

The bottom line then is the question of how we understand and meet human needs or devise strategies for aligning satisfaction strategies with the limits of a finite planet on a long-term basis within such a theoretical framework. One in which individuals cannot stop wanting ever more even if they are plump, filthy rich and burnt out and where natural life cycles outside of production functions do not exist.

3.3.3. The Role of Mindsets and Paradigm Shifts in Social Transformations

According to theories based on reflexivity, human decision-making processes are guided by an individual's worldview, mindset or consciousness. In making choices, he or she in turn influences the sense-making of counterparts and observers. Thereby, social groups continually co-create their living conditions. Humans are both the subjects and the objects of history, as political economist Robin Hahnel points out:

> *"[E]very person has natural attributes similar to those of other animals, and species characteristics shared only with other humans - both of which can be thought of as genetically 'wired-in.' Based on these genetic potentials people develop more specific derived needs and capacities as a result of their particular life experiences. While our natural and species needs and power are the results of past human evolution and are not subject to modification by individual or social activity, our derived needs and powers are subject to modification by individual activity and are very dependent on our social environment."*[197]

This dependence involves significant limitations on the ability of single people to change social roles defined by society's major institutions within which most of our activity takes place. This is one of the main causes of inertia in bigger organizations and societies. Social scientists, transition researchers and political economists use the concepts 'paradigm shifts', 'path dependencies' and 'hegemony' to assess these processes in more detail.

The term 'paradigm shift' originates from the philosophy of science and usually references Thomas Kuhn as the original thinker in this context. In his 1962 book *The Structure of Scientific Revolutions* he wanted to describe a change in the thought patterns and basic assumptions with which scientific analyses are addressed. In scientific terms, paradigms comprise assumptions that are epistemological (what can we know), ontological (what can be said to exist and how do we group it), and methodological (which guiding framework for solving a problem is suitable). In the context of worldviews many add axiological aspects (which values are adopted). Depending on how these are defined, one and the same event will be interpreted very differently. Kuhn examined how the standard definitions of these assumptions determine *which* questions will be raised when assessing a certain issue, *how* they will be raised, *what* will be observed and *how* these results will be interpreted. Usually, competing paradigms hold different assumptions and therefore one and the same event will be analyzed differently and proposed solutions to the same problem will vary significantly, depending on assumptions about actor behavior, processes of development and system characteristics.[198]

Generally, the existence of competing paradigms already prohibits the declaration of full objectivity or the existence of unshakable truth. This is particularly true for social sciences like economics where the ideas about the world inform the institutions we build to govern the world and therefore how the future world or 'reality' looks like. Thus, as Kuhn claimed,

197 Robin Hahnel, 2002, The ABCs of Political Economy. A Modern Approach, London: Pluto Press, pp. 4-5.

198 Thomas Kuhn, 1962, The Structure of Scientific Revolutions. University of Chicago Press.

what is considered to be 'true' in science has the quality of a consensus within the scientific community. Since the people forming this consensus have undergone processes of socialization themselves, science is never completely free of the mindsets that those involved bring to the table or laboratory. During strong dominance of one particular paradigm like that of neoclassical economics, however, research results not conforming to the paradigm's prediction are usually interpreted as a mistake by the researcher or dismissed as not worthy of further inquiry instead of a falsification of the paradigm's assumptions. When paradigms shift, however, new ways of interpretation and understanding that formerly would not have been considered valid are opened up and new truth claims can emerge.

Generally, the existence of competing paradigms already prohibits the declaration of full objectivity or the existence of unshakable truth.

Neoclassical economics has a long tradition of defending its foundational 'natural laws' of human behavior with vague amendments like 'less-than-perfect' information or 'bounded rationality' in decision-making, but has never gone through a real ontological shift. The socio-economic concept of path dependency sheds some light on why this is understandable. It explains why social institutions carry a self-stabilizing momentum fostering the continuation of the status quo. If the status quo is challenged, it translates into a deviation from the 'normal' way of doing things. Informal rules and routines in organizations tend to render such deviations as less easily acceptable or adaptable. They challenge beliefs, create fear of loss through role changes and include higher transaction costs since established processes are changed. In addition, institutionalization and the creation of manufactured infrastructures lead to material-technological lock-ins that are truly difficult to change even if people decide that an alternative way of providing, for example, public transport or energy would now be better.

Meanwhile, being socio-political actors, individuals or groups who are struggling for change will defend proposed alternatives rationally, seeking to justify them not only to themselves but also to others whose support they wish to gain. The more they manage to appeal to widely established convictions and canonized knowledge, cultural narratives, belief systems and the 'derived needs' in a particular group, the more likely their particular solution is to find supporters. Thus, proponents of status quo solutions and their path dependencies and the social roles, vested interests and structural procedures embedded therein, always have an advantage over those with new proposals. The prevailing ethics, norms, rules and laws in the given context and the distribution of skills and power to navigate these, effectively provide a framework for action that is a biasing yet rather 'invisible' source of justification and legitimization in political struggles.

Institutionalized ideas function as much as path dependencies as do technological and material infrastructures or economic cost-benefit calculations. They are part of the structural power of the status quo against alternative ideas and proposals.

In order to capture the effects of this framework for action and the role that the 'mental glue' of paradigms and mindsets play in defense of the status quo, political economist Antonio Gramsci developed the concept of hegemony in the 1930s. He coined this term because he wanted to find explanations for situations in which we observe a few enjoying far more wealth and freedom than the majority despite living in democracies with presumably similar rights of citizenship. The concept draws attention to the role of culture and social norms in securing leadership and the resilience of particular governance solutions. It also highlights how strategic use of science or cultural framing can dress up particular political positions. Gramsci's work draws heavily on that of Machiavelli, namely *The Prince*. For successful leadership towards the founding of a

Figure 3.3.4 – *Bicycle Stands in the Tram, Copenhagen. Credit: Gesa Maschkowski.*

new state, this work proposes the use of a 'dual perspective' of consensus and coercion. A central role in it is to offer a narrative on what this society and living in it are about, and which policies and programs are therefore in the common interest.[199]

This narrative has the quality of a 'social myth', "[A] political ideology expressed neither in the form of a cold utopia nor as learned theorizing, but rather by a creation of concrete fantasy which acts on a dispersed and shattered people to arouse and organize its collective will."[200] The 'collective will' for Gramsci is a group of people strategically promoting the ideas and stories supporting the social myth so that over time heterogeneous interests are welded together under a single aim, on the basis of an equal and common conception of the world.

The social myth at the center of this common conception therefore plays a very important role in legitimizing or justifying the adequacy of the specific norms, practices, institutions and regulations put forward or in place. Having become the dominant common sense in this society, it overlies individual sense-making and influences the development of attitudes as to why we should behave in a certain way or expect others to do so.

Such institutionalized ideas function as much as path dependencies as do technological and material infrastructures or economic cost-benefit calculations. They are part of the structural power of the status quo against alternative ideas and proposals. In reflexive science this is widely acknowledged even though the degree to which scholars and practitioners understand narratives or ideologies as a strategic mechanism of the elite to lead with least resistance will already depend on the paradigm. Some are closer to calling changes in perception of the world 'learning' and 'evolution' whilst others will enunciate the power aspects and expose elements of 'domination' in standardization and setting collective rules.

Regardless of an individual's position on this spectrum, most will agree that without a good narrative and some empirical examples of why changing the status quo is actually more in the interest of powerful players or the general good, it is very difficult meaningfully to change existing institutions and development pathways without full-blown crises that threaten their perpetuation. Preemptive adaptation or transformation strategies therefore rest on ideas and visions, or mind and paradigm shifts that redefine the understanding of what are possible solutions in a given situation, or even the imaginary of potential future lives, socio-economic set-ups and human-nature relations. After all, it is human sense-making and engagement that drive socio-economic and political developments and find materialization in the institutions that constitute the 'reality' of today.

Social system scholars like Donella Meadows therefore analyze paradigms as the 'source of systems', informing the purpose on which these are set out to deliver. In system transformation strategies, paradigms therefore rank as the second highest leverage point, above rule

199 Antonio Gramsci, 1971, Selections from the Prison Notebooks, International Publishers, p.126
200 *Ibid*.

changes and any other standards or metrics: "The shared idea in the minds of society, the great big unstated assumptions - unstated because unnecessary to state; everyone already knows them - constitute that society's paradigm, or deepest set of ideas about how the world works."[201] Once these reference frameworks start changing we observe a widespread questioning of the institutions in place, the goals they serve and the processes on which they rest. People begin to ask, "What is the purpose here?" From a Gramscian point of view one would say that the hegemony of particular ideas or narratives and therefore their legitimizing power are challenged. Coupled with frictions in the economic-technological reproduction circuits, conditions emerge for a 'structural crisis' that holds the potential for more radical system change.

3.3.4. Embedding Mindset and Paradigm Shifts in Transition Theory

One rather recent research discipline seeking to understand and conceptualize wider and deeper system change is transition theory.[202] One of the central concepts in this research community was developed by Frank Geels and is referred to as the Multi-Level Perspective (MLP).[203] It draws on structuration theory in sociology and distinguishes qualitatively different organisational levels in societies according to their degrees of changeability and resistance to change. This does not imply a hierarchical structure (change can arise at any level) but does express how changes at overarching levels typically impact path dependencies that structure the embedded ones. It distinguishes three such levels:

- a *niche level* where experiments or pioneering innovations are undertaken by small units or 'situated groups' that can change fastest and deviate most from the established framework for action because they show few interdependencies with overarching or neighboring systems,
- a *regime level* whose structures include well-established practices, rules, science and technologies that govern social interaction on the societal level and, through institutional settings and feedback loops, tend to stabilize the status quo,
- an overarching *landscape level* of slowly changing, rather exogenous development trajectories like environmental conditions, major infrastructure, deeply anchored economic institutions like the market system, and worldviews or social values. These form the backdrop for lower level developments.[204]

201 Donella Meadows, 2009, Thinking in Systems. A Primer, Earthscan, p. 162

202 For a website with a manifesto on this research approach, links to articles and the annual conference see *http://www.transitionsnetwork.org*

203 For an overview of joint concepts and differences between sub-schools see the book by Jan Shot et. al., 2010, Transitions to Sustainable Development. New Directions in the Study of Long Term Transformative Change, London: Routledge

204 Depending on the author you find slightly diverging descriptions on where structurations like market patterns or policy orientation rest, whether at regime or landscape level. Each case may allocate these slightly differently, depending on the actual system under consideration.

The figure below depicts the development of structurations at all these levels as the result of parallel processes in diverse subsystems influencing each other and reacting to changes or shocks in connected or overarching structurations. The landscape level is impossible to change purposefully in the short term, but it can bring about shocks that lead to rapid change at regime or niche levels, like natural disasters. The changing configurations create different impulses and spaces for transformations, many changes at embedded levels also triggering reactions at overarching ones.

From this point of view, transitions to sustainable development are conceptualized as long-term multi-actor processes involving interactions among citizens and consumers, businesses and markets, policy and infrastructures, technology and cultural meaning. Resistance results from direct intervention on the part of other actors or groups with different interests or views but also from the various types of path-dependencies outlined above.

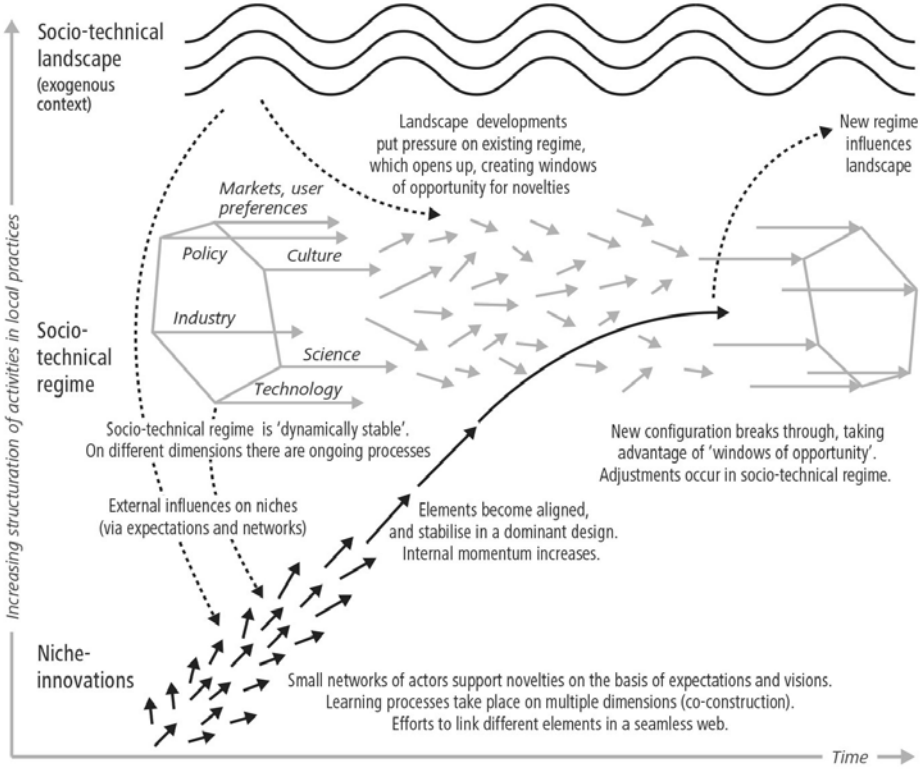

Figure 3.3.5 – *The Multi Level Perspective on System Transformation. From Göpel, M., 2016. The Great Mindshift. p. 21 (adapted from Geels, F., 2002. Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. Research Policy 31(8-9): 1263), Reproduced here with permission from M. Göpel and F. Geels.*

In their analyses, however, most transition studies on changes in socio-technical systems focus on the more visible and tangible types of path dependencies and the relationships between new technologies and social practices. The role of mindsets, narratives or cultural aspects and their potential structural power in pushing or blocking transformative change is usually not assessed. Some reference is made in a list of five 'main ingredients' for successful transformation that system innovation consultant Charles Leadbeater has put together. Taken together, these ingredients amount to what Gramsci would have called a structural crisis in a framework for action:

The new principles mentioned are the result of the conviction that the system could be organised differently, and ideas as to how this can happen and what purpose it could then fulfill.

1. Failures and frustrations with the current system multiply as negative consequences become increasingly visible.

2. The landscape in which the regime operates shifts as new long-term trends emerge or sudden events drastically impact general availability or persuasiveness of particular solutions.

3. Niche alternatives start to develop and gain momentum; coalitions start forming that coalesce around the principles of a new approach.

4. New technologies energize alternative solutions, either in the form of alternative products or as new possibilities for communication and connection.

5. For far-reaching regime change rather than small adaptations and co-optation by the old regime, dissents and therefore fissures within the regime itself are key. Possibly called niches within the regime, in joining coalitions for change they will help bring the system down or at least significantly change its current set-up and development dynamic.[205]

A core functional ingredient in this sequence is of course the 'new approach' mentioned in point 3, around which multiple actors and groups coalesce. The new principles mentioned are the result of the conviction that the system could be organized differently, and ideas as to how this can happen and what purpose it could then fulfill. In the following paragraphs I

205 Charlie Leadbeater, 2013, The Need For Regime Change, in: Systemic Innovation: A Discussion Series, Nesta Foundation, pp.31-32, for download at *http://www.nesta.org.uk/publications/systemic-innovation-discussion-series*

illustrate that hegemony theory can illuminate this point and provide an informative perspective on system transformation.

Contemporary political economists like Stephan Gill have developed analytical concepts of Gramscian hegemony that fit nicely with the MLP. They highlight how the neoclassical development story finds different forms of expression at each level and help sharpen understanding of the degree to which this paradigm has been encoded into societies and culture.

At the landscape level, *market civilization* describes the overarching structure of the market system and the hegemonic narrative of competitive growth according to which all relationships should be shaped by commodification and organized according to price signals. According to Gill, this deeply anchored grammar nurtures an ahistorical, economistic and materialistic, self-oriented, short-term and ecologically myopic perspective on how the world works.[206]

The regime level is marked by what Gill calls *new constitutionalism*, describing how laws, regulations, social practices and artifacts are necessary to create commodity forms and market patterns from human skills, ecosystem services or credit relations. Their amendment and expansion transform the organizational logic of formerly non-marketized areas of life, like governance of nature in the form of Emissions Trading Systems. The most impressive of those examples may be the addition to the finance system of 'third markets' of derivatives that have no existence beyond digital numbers on a screen and legal frameworks promising their owners' claims to real resources.

Thus, from a hegemony point of view, such regime structures armor the market civilization perspective on human development via tangible manifestations in norms, rules, role definitions and infrastructures that in turn become people's experienced reality. It is of this that the edited volume by Boas/McNeill on 'framing the world', cited above, is providing research examples: how the creation of international institutions like the International Monetary Fund or World Bank is driven by players convinced of the neoclassical paradigm for globalization strategies (in its policy implications often referred to as the 'Washington Consensus') and how these in turn lead to a restructuring of the living conditions of people on the ground. In effect, living embedded in such social and institutional systems and path dependencies pushes individuals closer to behaving and organizing their own lives in accordance with the predictions and demands of the market civilization. The term 'armoring' also indicates that those interests and groups benefiting from these particular regime solutions can count on being defended with the force of the law: as the generalized rules for society they reflect the 'common interest' or 'normality' that can legitimately be coercively enforced, even by violence. Here we find the Machiavellian duality of consensus and coercion in successful ruling strategies.

In addition to these structurating effects as captured in the three levels of the MLP, Gill also introduces a concept capturing self-governing effects of worldviews, norms and common

206 Stephen Gill, 2002, Power and Resistance in the New World Order, Palgrave, pp. 116-138.

In the end, each group or niche is the result of individuals making the choice to come together, and it will be individual people formulating the new principles for pioneering activities.

sense within individuals. *Disciplinary neoliberalism* refers to the definition of discipline used by sociologist Max Weber. It holds that classes, status groups, political parties and the like are social phenomena expressing the distribution of power in a society. They discipline those who wish to be part of these communities or networks: "What is decisive for discipline is that obedience of a plurality of men is rationally uniform."[207] In effect this means that everyone seeking to fit in with a market society develops rationales, habits and social practices that allow for him or her to lead a successful life under the hegemonic paradigm or narrative and the organizational logics or new constitutionalism patterns that have been set up.

Gramsci himself therefore urged not to restrict the idea of coercive rule to official laws but to understand how the 'private' context equally defines codes of conduct and shapes the limits of possible deviance as long as 'fitting in' is still the motivation:

> *"Question of the 'Law': this concept will have to be extended to include those activities which are at present classified as 'legally neutral', and which belong to the domain of civil society; the latter operates without 'sanctions' or compulsory 'obligations', but nevertheless exerts a collective pressure and obtains objective results in the form of an evolution of customs, ways of thinking and acting, morality, etc."*[208]

Thus, Gill's neo-Gramscian concepts substantiate the general MLP view on societies with a political economy interpretation of current path dependencies as having mental as well as legal quality. They summarize manifestations of the neoclassical paradigm and mindset at each of the three levels distinguished by Geels and Kemp. This shows how the hegemonic narrative of making sense of why things are the way they are translates into structural power potentials in change or resistance strategies: those players able to present their approach or proposals and principles as relevant or in line with the widely accepted story and goal definitions for development are likely to find support.

207 Max Weber, 1963, quoted by Gill 2002, p.130.

208 Gramsci, 1971, p.242.

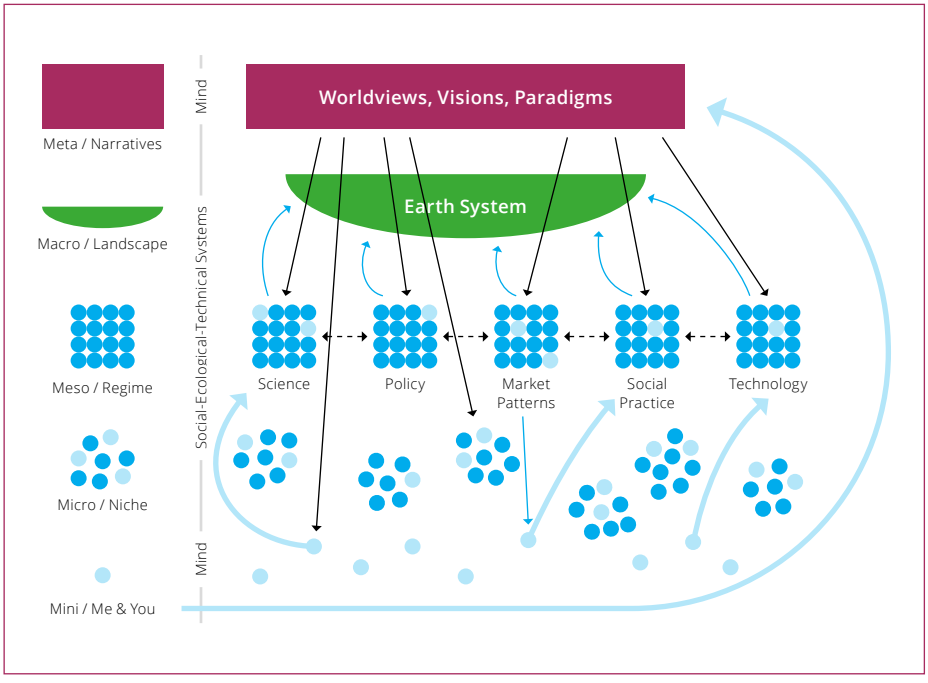

Figure 3.3.6 – *The Role of Mindsets in the Multi-Level-Perspective on System Change. From Göpel, M., 2016. The Great Mindshift. Springer. P. 47.* ***http://www.springer.com/de/book/9783319437651****.*

To capture this mediating role of mindsets or paradigms in societal transformations one can expand the MLP graph. The landscape level can be divided so that qualitatively very different aspects are separated. At the *macro level* I locate more physical-structural parameters on which humans have only very indirect and slow influence, like earth system processes. At a *meta level* I distinguish the role of worldviews or mindsets that although very resistant to change are directly constructed by humans and therefore also directly changeable, even in the short term. They permeate the social regime and niche activities that I group under the term 'social technologies', for which others may use the term 'institutions'. In addition, I added the micro level to highlight the role of individual sense-making – which can have reifying effects, as Gill pointed out, but also is the ultimate source of deviation from the hegemonic narrative or paradigm. In the end, each group or niche is the result of individuals making the choice to come together, and it will be individual people formulating the new principles for pioneering activities mentioned by Leadbeater. By connecting with complex system innovation approaches like that of Donella Meadows I will argue that changes at the rather intangible meta level translate into the potential to become objective future reality: in the end all human-created structures are a materialization of ideas.

3.3.5. Mind Shifts as High Leverage Points in Sustainability Transitions

Systems - like the ones grouped onto the different levels of the MLP, or what the MLP as a whole describes - can be many things: including a society, a family, a corporation, a university, a forest, or an economy. A system can be defined as, "[A] set of things – people, cells, molecules, or whatever – interconnected in such a way that they produce their own pattern of behavior over time."[209] A living system like a desert, a forest, an ocean, and also a city, a university, a business, or a society can be viewed as a boundary-maintaining entity and its behaviour analysed by distinguishing three different elements or components: parts, connections and purpose. Parts need not be material in nature. They can also, for example, be people, stored information, knowledge or virtual money. Accumulations of parts, material or immaterial, are viewed as *stocks* of resources that can be drawn on as the system functions. The types of interconnections or feedback loops among parts are called *flows*: these can be energy, material or information. They determine changes in each stock's quality or quantity, depending on their feedback loops. The system's *purpose* determines what it is organized to achieve (e.g., survival, photosynthesis, winning a game, providing good education, profit-making). Understanding a system's purpose is therefore essential when seeking to understand its pattern of behavior over time.

In human-influenced systems, the purpose is of course closely tied together with the sense-making of actors and the narratives according to which stocks and flows are sought to be organized. To imagine this effect it is helpful to turn to Donella Meadows' list of leverage points for system change. It ranks possible intervention points according to their transformative potential and likelihood of actually influencing them.

PLACES TO INTERVENE IN A SYSTEM (IN INCREASING ORDER OF EFFECTIVENESS)

12. Constants, parameters, numbers (such as subsidies, taxes, standards)
11. The sizes of buffers and other stabilizing stocks, relative to their flows
10. The structure of material stocks and flows (such as transport networks, population age structures)
9. The lengths of delays, relative to the rate of system change
8. The strength of negative feedback loops, relative to the deviations they correct
7. The gain around driving positive feedback loops
6. The structure of information flows (who does and does not have access to what kinds of information)
5. The rules of the system (such as incentives, punishments, constraints)
4. The power to add, change, evolve, or self-organize system structure
3. The goals of the system
2. The mindset or paradigm out of which the system – its goals, structure/rules, delays, parameters – arises
1. The power to transcend paradigms

209 Donella Meadows, 2009, p. 2

This list is designed for social system change and change. Adjustments at lower levels can alleviate immediate pressures but will usually not break path dependencies perpetuating the system's behavior and development dynamic. Impacts on the behavior and purpose of the system arise only if changing these lower parameters triggers leverage points higher in the list. These leverage points are embedded into many path dependencies or feedback loops: material infrastructure, social processes and institutions, and individual understanding of what is at stake in the given context. This makes them more difficult to change but also means that changing them successfully will bring more lasting change to the entire system.[210]

For example, if a government increases the minimum wage by ten percent, does this mean the former rate was not enough to pay for existence – or is it the measure expressing a new goal that income differences between people working in the same organization should be reduced? Is it simply a measure to reduce poverty statistics and entry into welfare programs, or is it a move to alleviate inequality in a society? The latter would be a new rule indicating a goal-shift as to how much inequality we accept in sustainable societies - rather than alleviating a symptom of systemic reinforcement of inequality.

Changing the third highest leverage point, the system goal, therefore means mobilizing many lower leverage points. Finally, the top two encapsulate the transformative potential of mind or paradigm shifts: "[T]he mindset or paradigm out of which the system – its goals, structure, rules, delays, parameters - arises; and the power to transcend paradigms."[211] They provide the reference framework for what seems adequate, rational, desirable and possible.

Linking these analytical categories to the challenge of sustainable development today, we see that the most important stated goal of our societies is economic growth. It prevails even though the type of growth structure we have today has many social and environmental costs. Yet, in order to tackle those problems, societies keep on pushing for more growth in order to pay the costs of the environmental and social damage. Given the ongoing neoclassical paradigm and its blind spots this path can be promoted in ignorance to the fact that most of the damage is happening because of *the type of growth* to which this development idea or paradigm aspires.

Meadows points out that this phenomenon is typical: people have a feel for where leverage points sit but often tend to push them in the wrong direction. To address negative outcomes and emerging structural frictions, the collective will suggests pushing for yet more growth of this kind instead of considering that less growth could actually reduce this damage.[212]
A prominent example of this paradox is the Brundtland report which gave the original definition of sustainable development: it suggests fostering three percent growth in GDP worldwide

210 Donella Meadows, 1999, Leverage Points. Places to Intervene in a System, p.3. *http://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/*

211 *Ibid*, p. 3.

212 *Ibid*, p. 1.

because otherwise rich countries will not invest in poor countries and rich people will not accept redistributive measures unless they derive from further gains. Imagination of possible future developments is limited by the image and logic of a capitalist market society connecting up to 10 billion selfish maximizers of personal utility.

Changing the deeply embedded neoclassical paradigm, its political and economic institutions, distribution patterns, life styles and identity-shaping discipline therefore amounts to no less than repurposing human development.

Changing the deeply embedded neoclassical paradigm, its political and economic institutions, distribution patterns, lifestyles and identity-shaping discipline therefore amounts to no less than *repurposing* human development. This is a huge task, will involve substantial conflict, and will take time. But even very deep social structures ultimately depend on humans reproducing them. So just as paradigms and hegemonic mindsets have a hampering effect on alternative proposals, cultivating future capacities to challenge and change them also has tremendous emancipatory power. Gramsci called this the progressive self-consciousness:

> *"The awareness of self is re-constituted through an appreciation of prevailing thought-patterns and the nature and distribution of life-chances. Hence the moment of self-awareness leads to a more complex and coherent understanding of the social world and is a form of historical change."*[213]

So, while changing paradigms is not an easy task, applying reflexive futures literacy practice is immediately open to everyone – as the direct arrow from mini to meta level in Figure 3.3.6 expresses. Donella Meadows cites Thomas Kuhn when outlining this path of engagement:

> *"In a nutshell, you keep pointing to the anomalies and failures of the old paradigm, you keep speaking louder and with assurance from the new paradigm, you insert people with the new paradigm in places of public visibility and power. You don't waste time with reactionaries; rather you work with active change agents and with the vast middle ground of people who are open-minded".*[214]

A lot of this is happening today, as the practical examples in the next section show.

213 Here quoted by Stephen Gill, 2002, p. 31.

214 Donella Meadows, 1999, p. 18.

3.3.6. Living a New Economic Paradigm in Practice

Across the world many different initiatives and movements for alternative ways of organizing human relationships and human interactions with nature are in place and emerging. We see a wave of small-scale *repurposing* experiments with alternative systems of production and consumption. They are of different sizes and shapes and carry different names, but their commonalities in paradigm are striking. None of them sticks with the story that actors are selfish and insatiable independent units or that market prices and efficient competition are the only goal for successful development processes. All of them track connections between social processes and those of the natural ecosystems around them. They seek to understand how the wider system context influences actor decision-making and institutional development trajectories. The following sub-sections review four exemplary movements that are rapidly growing. It is a very Eurocentric snap-shot of initiatives that have achieved mainstream attention. Further research could seek to map many more initiatives around the world and document paradigmatic similarities or differences.

The Economy for the Common Good

The mindset of this movement does not extrapolate from the description of 'how humans are' but starts from a societal or system view. It locates the challenge of successful sustainability solutions for thinking and aspiring individuals in the balance between community responsibility and individual freedom. Neither can work without the other: individuals need cooperation to flourish and build wealth and the community needs creative deviators in order to diversify and adapt.

Christian Felber, a lead author in this movement, therefore emphasizes the need to reconnect private entrepreneurship with the overall binding goal of the common good. The latter can only be defined in democratic political processes and the former shows how a particular way of running a business can deliver on it. According to Felber, current economic rules encourage egoism, greed and striving for power. Despite what the 'com' in 'competition rules' would suggest (Latin for 'together' or 'we'), they ensure that winners basically take all and render even hostile takeovers of entirely healthy businesses as a legitimate outcome as long as purchasing power can push it through. This incentivizes relationships of 'contrapetition' in which asocial and anti-social behavior pay off, attacking units are strengthened for the next battle and power and wealth are increasingly concentrated.[215]

Economy of the Common Goods emphasizes the need to reconnect private entrepreneurship with the overall binding goal of the common good.

215 Christian Felber, Gemeinwohlökonomie. Das Wirtschafsmodell der Zukunft, Deuticke, 2010.

The movement's website *www.gemeinwohloekonomie.org* proposes 20 principles for how an alternative type of economy could be put into practice. Rather than fixed rules, they are seen as inspirations for reflection and dialogue on the values, norms and practices that status quo institutions and regime solutions nurture or even prescribe. Principle one expresses the overall mission purpose:

> *"The same collectively shared values that contribute to fulfilling interpersonal relationships are the basis for the Economy for the Common Good: confidence building, cooperation, appreciation, democracy, solidarity. Scientific research proves that fulfilling interpersonal relationships constitute a key factor to happiness and motivation."*[216]

Following from this the foreseen 'more intelligent rules of the game' should lead away from contrapetition towards cooperation, from personal profit to common good, and from market control to democratic decision making. In an Economy for the Common Good, business performance measurements therefore go beyond the internalization of environmental harm into market prices: "Economic success will no longer be measured with (monetary) exchange value indicators, but with (non-monetary) use value indicators." As a consequence, similar indicators for business and economic performance on a societal level can align bottom-up and top-down initiatives towards the new societal purpose:

The entire idea is to make selfish and ruthless behavior the more difficult and costly option rather than the easy and profitable one.

> *"On the macroeconomic level (national economy) the Gross Domestic Product (GDP) will be replaced – as an indicator of success – by the Common Good Product. On the microeconomic level (company) the financial balance sheet will be replaced by the Common Good Balance Sheet (CGBS). The CGBS becomes the main balance sheet of all companies. The more companies act and organize themselves along social, ecological and democratic lines, the more solidarity they display, the better will be the results of their Common Good Balance Sheet. The better the CGBS results of the companies within a national economy, the higher its Common Good Product."*[217]

The rules and incentive structures of Common Good Economy are not to be confused with a socialist planning state that Felber himself diagnoses to have suffocated individual freedom. The entire idea is to make selfish and ruthless behavior the more difficult and costly option

216 See the website *http://www.gemeinwohl-oekonomie.org/en/content/20-principles-guiding-economy-common-good*

217 *Ibid.*

rather than the easy and profitable one, e.g. creation of social and environmental costs would now incur a competitive disadvantage rather than advantage. A research area full of relevant ideas on how to redesign institutions, infrastructures and social settings so that they support decision-making in line with particular goals is Behavioral Economics. Here the term 'nudging' refers to non-coercive structural factors that enable rather than hinder sustainable behavior in any given situation.

The Transition Movement

The Transition Movement finds its common denominator in engaging people in collective change processes in communities of place. Originating in the UK, it has spread to at least 43 countries worldwide[218] and makes 'reflexive relocalization' its core stance. The term reflexive is important because it highlights that the change processes are driven by communicative engagement among members and not imposed by rule changes and control of compliance. The general paradigm pictures communities as social-ecological systems embedded in wider environmental systems; the goal is to improve the resilience of the community in light of growing megatrends like climate change, rising energy prices and economic crises.[219]

In the first Transition Handbook, Rob Hopkins, founder of this movement, describes resilient sustainable communities as those that are structured along three principles: *diversity* of life-supporting solutions or livelihoods, *modular structuration* with buffers to the outer systems that increase self-reliance possibilities, and *tight feedback loops* that bring the results of actions closer to those responsible for them.[220] This of course is easiest done at the local level where physical proximity facilitates compliance with these design principles

Once again, overarching system dynamics determine which production processes are promising and the assumption is that learning actors rationally adapt their solutions accordingly. Rational in this context, however, means with reason and a lot of discussion rather than an automated response to cost-benefit stimuli. Part of this reasoning involves assessing foundational ideas around what humans need and want and questioning whether efficiency gains are always good. An explicit part of increasing self-reliance and resilience, for example, means turning away from massive economies of scale that are only possible under systems with very high divisions of labor and concentration of production. Less mass production and a focus on non-consumption strategies for wellbeing are also central elements and pursued by linking, "[S]atisfaction and happiness to other less tangible things like community, meaningful work, skills and friendship."[221]

218 *http://www.transitionnetwork.org/initiatives/.* Accessed October 27th 2014.

219 Rob Hopkins, The Transition Handbook. From oil dependency to local resilience, 2008, p. 10.

220 *Ibid,* pp. 55-56.

221 Rob Hopkins, 2012, Resilience Thinking, in: Bollier and Helfrich, *The Wealth of the Commons*, The Commons Strategy Group, pp. 20-21.

The vision behind Transition Towns or communities is one of a resilient world built on the promotion of trust, well-developed social networks, and adaptable groups working well together. Research strands providing evidence that this will create more happiness than neoclassical ideas of endless individual competition for more consumption include positive psychology, wellbeing studies and neuroscience. Many more principles of the Transition movement contradict the notions of neoclassical models: actors are explicitly requested to change their way of thinking and being in the world and to share instead of compete. Production and cooperation processes are intentionally designed to be less efficient and centralized in order to increase resilience and co-creation.

The vision behind Transition Towns or communities is one of a resilient world built on the promotion of trust, well developed social networks, and adaptable groups working well together.

The main mission is summarized as follows: "To inspire, encourage, connect, support and train communities as they adopt and adapt the transition model on their journey to urgently rebuild resilience and drastically reduce CO_2 emissions."[222] Once again, the economic system is viewed as a subsystem of socio-ecological systems that should serve this higher purpose and fundamentally change if necessary. The emphasis Transition hence places on collaborative economic solutions embedded within the social and ecological realities of place lead some analysts to locate it within a broader global movement for the defense and creation of commons.[223]

Commoning

According to the Commoning movement, a fundamental change necessary for resilience and sustainable prosperity is the dethroning of private property. Commoning solutions envision and enact non-commodified relationships in which joint responsibility for the maintenance of the overall system is an integral part. At the center of these governance approaches lies an ideal of property that treats most of what exists today as the common heritage of humankind to which each person is equally entitled. This implies that each generation should not use more than future generations will need to enjoy similar levels of wealth. Jointly produced value is conceptualized as a common good outcome rather than divided into individual shares of the market returns in line with the particular 'value' that each contributor brought to the process. Thus, commons imply both responsibilities and benefits: alongside being co-stewards of

222 Rob Hopkins and Peter Lipman, Who we are and what we do, document on the Transition Network website, for download at *http://www.transitionnetwork.org/sites/www.transitionnetwork.org/files/WhoWeAreAndWhatWeDo-lowres.pdf*

223 Justin Kenrick, 2012, The Climate and the Commons. In B. Davey (ed.), Sharing for Survival. Feasta. *http://www.sharingforsurvival.org/index.php/chapter-2-the-climate-and-the-commons/;* Henfrey & Kenrick, this volume.

Figure 3.3.7 – *Edible Cities Conference, Witzenhausen, 2013. Credit: Gesa Maschkowski.*

what earth and ancestors have provided, everyone is conceived to be a co-proprietor of the wealth created.

The book *The Wealth of the Commons: A World Beyond Market and State* comprises 73 essays from thinkers and practitioners in the field. The commonalities binding this rapidly growing community are described as 'an overarching worldview' along with a set of social attitudes and commitments and a political philosophy or even spiritual disposition that guides an experimental pathway for strategic change.[224] The introduction of the book highlights statistics that show how much 'overwealth' (Überfluss) there is in the world and that it is not scarcity but unsound patterns of production, distribution and consumption that create the unsustainable outcomes of today. Thus, it is also not simply a question of better technologies but of better institutions with their psychological, socio-cultural and institutional path dependencies.

While there does not exist one unitary definition of the commons or commoning, one website central to the movement (*http://onthecommons.org*) summarizes the gist of this paradigm. The core principles characterizing all commons initiatives are:

224 David Bollier and Silke Helfrich, 2012, The Wealth of the Commons, The Commons Strategy Group, pp. xii-xiii.

- *equity* – everyone has a fair share of our commons to expand opportunities for all;
- *sustainability* – the common wealth must be cared for so that it can sustain all living beings, including future generations;
- *interdependence* – cooperation and connection in communities, around the world and with the living planet is essential for the future.

The characteristics of community life in line with the commoning vision are described as:

- *shared governance* in the most participatory form;
- *deepened responsibility* for the restoration and care of the common inheritage;
- *belonging* as a general outlook on ownership and organization;
- *co-creating* as a form of engagement and sharing that highlights the abundance of skills and solutions rather than scarcity.

Commoning approaches therefore distinctly break with the organizational logic of markets and declare the profit motive and individualistic competition processes to be core drivers of unsustainable solutions.

3.3.7. Conclusion

Before an individual decides to act, he or she requires a story or mindset to make sense of what life is all about and what is at stake in the given situation. Acting rationally from a reflexive science view therefore means first and foremost to act in congruence with one's worldview, and with one's interpretation of the social logics or 'rules of the game' and if those can or should be changed. Research designs treating mindsets or paradigms as core variables therefore seek to show how the same situation or possible future developments are viewed very differently depending on the chosen lens. The goal of this paper was to connect a critical political economy approach in reflexive science, namely Gramscian hegemony theory, with currently widely discussed concepts in transition theory and the notion of futures literacy.

By discussing exemplary manifestations of the neoclassical paradigm with reference to the Multi-Level-Perspective on societal change it showed how ideas and their materialization in concrete norms, practices, rules, laws, material infrastructures and physical technologies create a framework of action that influences how human needs develop as much as what seem adequate or possible solutions for commonly defined goals. It therefore engages with the research challenge that the 2013 World Social Science Report also formulated:

> *"Critical to a social-ecological systems perspective is the role of humans as reflexive and creative agents of deliberate change. Understanding how values, attitudes, worldviews, beliefs and visions of the future influence system structures and processes is crucial".*[225]

225 World Social Science Report 2013. Changing Environments, UNESCO and ICCS, Summary, p. 7, online readable at *http://www.oecd-ilibrary.org/social-issues-migration-health/world-social-science-report-2013_9789264203419-en*

Figure 3.3.8 – *Shoe bed at Allmende-Kontor Community Garden. Credit: Gesa Maschkowski.*

Applying futures literacy like the examples of practice reviewed in the previous section allows envisioning and creation of institutions, processes, technologies and business models that are sustainable by design rather than relying on cleaning up after the event. It also empowers actors to identify and speak up against the co-optation of new ideas, frames and narratives into the old paradigm so that their transformative potential is contained.

The paper showed that neoclassical worldviews and models are full of blind spots regarding the origins and qualities of human needs as well as natural processes providing the resources needed to satisfy them. It also provided some first ideas as to where their nevertheless ongoing reification is located, from overarching infrastructures to individual identity formation. As philosopher Richard David Precht points out:

> *"Strict and tough calculation of utility, ruthlessness and greed are not man's main driving forces, but the result of targeted breeding. One could call this process 'the origin of egoism by capitalist selection,' following Charles Darwin's famous principal work."*[226]

My final conclusion therefore holds that the ultimate drivers of societal change are located within each one of us. In comparison to the magnitude of the challenges that earth scientists

226 Richard Precht, here cited by Habermann 2012, We Are Not Born as Egoists, in Bollier/Helfrich 2012, p.15

and poverty statistics describe this may sound disproportionate. But each act of doing things differently, each questioning of purpose or reasons, leaves a dent in the former framework of action and its reifying impacts. Psychology, sociology, neurosciences show that shifting mindsets implies not only a change in thinking but a change in being, feeling, engaging, relating and acting in the world. They are at the root of what we can imagine as possible sustainable futures and adequate social as well as physical technologies and governing systems to host them. Various fast-growing pioneer movements for new sustainability solutions are an expression of this. They all carry clear principles and imaginations of system designs whose purpose is a different one than economic growth and market forces.

The fascinating work of the next years and decades in research and practice will be to keep on working out the new paradigm or storylines emerging from this movement and see how they may shape into a new collective will with a compelling Gramscian social myth. The latter needs more conscious storytelling and strategic coalition building among pioneering initiatives or change makers highlighting these niche practices to argue for change at regime levels. After the first superficial comparison of paradigms behind Common Good Economy, Transition Movement and Commoning I am less pessimistic than sociologist Harald Welzer that this is possible:

> *"For the time being, the transformation necessary today lacks guiding principles of the kind that early industrialized societies had in terms of progress, freedom, prosperity and growth. It will not be possible to establish new mental infrastructures without guiding ideas, yet if they do not dovetail almost naturally into day-to-day lives and lifestyles, visions of the self and frames of reference for the future, they will remain just that – ideas."*[227]

Instead, I argue that we do not need to reinvent principles but much rather reclaim the meaning of what deeply anchored human values are connected with. Among the pioneers we find overlapping ideas for this: a holistic understanding of *prosperity* beyond consumption needs that guides equitable and balanced *progress* of the whole socio-ecological system to improve human security - *freedom from fear* to fall behind or to be enmeshed in conflicts over resources and *freedom from want* that marketing and advertising constantly create. The examples already show that this leads to an unprecedented *growth* in the *creativity* of strategies for satisfying non-material needs and *conviviality* in the processes for enacting them. As a result we can add another benefit for future human development: improved individual, communal and societal *resilience* in a world whose transformation - towards sustainable development or in any other direction - will present us with a rocky ride.

227 Harald Welzer, 2012, Mental Infrastructures, essay published by the Boell Foundation, Germany, p. 32.

Resilience has become a familiar buzz word in mainstream politics, most commonly as an excuse for 'business as usual'. Both resilience science and practical experience of community-led action for social change action suggest an alternative view, in which resilience implies deep and far-reaching transformation of society.

This collection helps bring that vision into focus through a compelling blend of insights, ideas and action points from community activists, activist-scholars and leading resilience scientists. It includes direct accounts of practical efforts to build resilience at community level, theoretical reflections from a range of academic fields, and calls for collaboration among diverse efforts to create and defend community resilience worldwide.

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