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The importance of a Natural Social Contract and co-evolutionary governance for sustainability transitions

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Abstract

The corona (COVID-19) pandemic offers an opportunity for dealing with persistent problems, through a transformative recovery process. It is a crisis that offers opportunities for dealing with three interrelated crises: the *ecological* crisis (climate change, loss of biodiversity, resource depletion, pollution and ecosystem destruction), the *confidence* crisis (people losing trust in government, politics, companies, regular news channels, science, each other and the future), and the *inequality* crisis (the widening of the gap between rich and poor).

Our argument is that sustainability transitions will not succeed without a different economy and another social contract with the associated rights and duties of care (for the environment and the well-being of others, including future generations). A different social contract is not only desirable from the point of view of sustainability and fairness, justice and equality, but is also necessary to restore citizens' trust in politics, government, companies and each other. In the paper we discuss mechanisms towards a Natural Social Contract, systemic leverage points for system transformations and possibilities for co-evolutionary governance by actor coalitions interested in transformative change. The combination of those three elements helps to synchronize different agendas and reduce the chance that they will work against each other.

Key words: Natural Social Contract, co-evolutionary governance, transformative governance based on co-evolution, institutional change, policy mixes, transformative social-ecological innovation, sustainability transition

Contents

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1. Introduction

In the EU and many other countries in the world the need for sustainability transitions and for making the economy more fair and just is widely accepted but the need for synchronizing the different transitions (characterized by different directionalities, knowledge/power constellations and values) is not well-considered. In this paper we argue that a new social contract is needed to serve the various sustainability transitions agenda's (the energy transition, food transition and circular economy transition) alongside the socio-economic agenda and the safeguarding of democracy agenda (which is currently undermined by populists or (non-democratic) lobbyists who oppose the climate agenda, the food transition agenda, or even challenge the European rule of law principles (e.g. by Poland and Hungary).

Each of those agendas constitutes a formidable challenge because they call for transformative change, which is resisted by powerful actors and coalitions who object to one or more aspects of it. A further complication is that sectoral change and change in governance is path-dependent and incapable of transforming itself through volition: "One cannot jump from each branch in the evolutionary tree to each imaginable other branch. Evolutions are marked by dependency (van Assche, 2014, p. 5) and "one cannot simply redesign a capitalist democracy, nor any other regime, or any other linkage between economic and political domains (Allina–Pisano 2008; Verdery 2003)" (ibid, p. 5).

In this paper, we discuss the need for an alternative social contract and the mechanisms through which this is possible, with special attention to possibilities for co-evolutionary steering of interrelated transitions. This may appear very utopian, but another social contract is already emerging, at various levels and often in a polycentric way, which seeks to counteract environmental degradation and rebalance society (O'Brien et al. 2009; Schellnhuber et al. 2011; Jennings 2016; Huntjens, 2019, 2021; Omtzigt, 2021; Shafik, 2021). A Natural Social Contract caters to calls for making society more fair and equal and more sustainable and is practiced and carried by (prefigurative) practices at various levels, and based on values of responsibility that are gradually developed within the hybrid sphere and an alternative economy.

New social contracts do not get collectively chosen but they evolve out of problem agendas which cause actors to collaborate and introduce policies for transformative change, the details of which are open to adjustment. We stress that social contract formation or renegotiation and institutional change takes places in a polycentric way, tuned to the specific features of local geography, ecology, economies and cultures (Ostrom, 2005; Huntjens et al., 2012; Huntjens, 2021), and "the result of specific governance evolutions, of the interplay between path dependence, goal dependence and interdependence, and various discursive mechanisms" (cf. van Assche et al., 2014, p. 88). A Natural Social Contract is supported by the SDG agenda and Beyond GDP measurement activities by statistical offices and (locally rooted, internationally networked) social-ecological movements, but the transformative nature of change makes it difficult to achieve. Transformative change typically develops in niches, but requires changing circumstances (e.g. in the form of shrinking markets for unsustainable or unhealthy products).

In the past two decades, many scholars have argued that social contracts should be renegotiated due to the societal risks of climate change (O'Brien et al., 2009; Schellnhuber et al., 2011; Adger et al., 2013) and the ongoing ecological crisis (Jennings 2016), in particular given the co-evolving nature of risks and multi-actor influences on change (O'Brien, 2012). Some scholars argue that the nature of environmental problems we face today requires new roles for states (Dryzek et al., 2002), and more importance for the plural sector (Mintzberg, 2005; Huntjens, 2021; Kemp et al., 2021), while others

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stress that future generations are not represented (Huntjens, 2021). Other limitations include the influence of non-democratic lobbying activities by powerful players (Weale, 2011), and the often unequal distribution of risks and burdens (Pelling, 2010; Huntjens, 2021).

Looking ahead, our societies will need to rethink how we inhabit and cultivate our planet and keep it healthy for future generations. Making these changes involve profound, long-term, and systemic changes in society's common practices, policies, and philosophies that will rely on new knowledge and skills. Four carriers of change are: the creation of new imaginaries (such as the Natural Social Contract and the well-being economy based on an ontology of interconnectedness and the elimination of irresponsible behaviour), coalitions between alternative economy actors and regime actors who find common ground (based on business models of multiple value creation), the SDG agenda and practices of co-evolutionary governance to synchronise different agendas.

The structure of the paper is as follows. In section 2 we discuss the need for collaborative governance and co-evolutionary steering that is forward-looking, mindful of interaction-effects and capable to fostering transformative change (in present-day democracies and polarized societies) initially as an add-on phenomenon (through institutional layering) but after gaining power capable of transforming sectors through policies that undermine the status quo. We also discuss evolutionary governance theory (EGT) as a theory of the intricacies of governance (its poly-centric nature, the power of stories in maintaining order and changing it and the important influence of structural differentiation). EGT holds that "all elements of governance are subject to evolution, they co-evolve, and most of them are the product of governance itself". Although EGT is mindful of achieving predefined outcomes, it also holds that a governance system that is concerned with its own functioning, with regard to serving multiple agendas, can achieve more in the sense of breaking free from an exploitative economy and sectoral ways of thinking. A growing commitment to a Natural Social Contract (discussed in section 3), can help to institute stronger policies for destabilising currently dominant regimes (Kivimaa and Kern, 2020) while avoiding a backlash in democracy. Interdependencies can be made a source of innovation in governance, by leading certain actor coalitions to work towards institutional change (through institutional work). In section 4, we present concrete proposals for transition policy for dealing with the following four problems: the sectoral focus of transition policy, the steering power of government, distrustful citizens, and the imperfection of the existing structures. We end the paper with conclusions (in section 5).

2. Transformation pleas and approaches for achieving this

Many people consider transformative change necessary for dealing with persistent problems in the form of inequality, the exploitative economy and regenerating eco-systems. Prominent proposals are the donut model (Raworth, 2017), the economy for the common good (Felder, 2015), postcapitalism (Mason, 2015) and A precariat chapter by Standing (2015). All four proposals are based on principles to be adopted. A different approach is taken in the literature on sustainability transitions (Geels, 2005; Geels and Schot, 2007, Grin et al., 2010, Rosenbloom et al., 2019), by examining the actual mechanisms through which incumbent products and incumbent power is decreased. Dynamics of adaptation and transformation in sectors are studied from a socio-technical perspective which gives due attention to the practices, aims and networks of (organized) actors in niches, regimes and niche-regimes.[3]

[3] The primary frameworks for analysis of niche innovations and regime changes are: strategic niche management (Kemp et al, Raven), technology innovation systems (Bergek, Markardt, Hekkert), the multilevel perspective (Rip and Kemp, Geels) and social practices (Shove).

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Sustainability transitions research is based on an evolutionary ontology with attention being given to the co-evolution of developments, where co-evolution refers to processes of evolution that are linked with each other. Next to biological co-evolution the following models of co-evolution are being distinguished:

The co-evolution of:

- sociosystems and ecosystems (Norgaard, 1985)
- supply and demand (Nelson and Winter 1982)
- technology and users (von Hippel 1988; Leonard-Barton 1988) with von Hippel talking about co-dynamics and Leonard-Barton about mutual adaptation
- technology, industry structure and institutions (Nelson 1994; Rosenkopf and Tushman, 1994, Sui and Liu, 2020).
- technology and society (Rip and Kemp 1998; van de Ven and Garud 1994; Geels, 1995p; von Tunzelmann 2001)
- industry paths (Schamp (2010); Aarset and Jakobsen (2015)
- technical, environmental and social systems (Kemp and Rotmans (2005)
- actor/institution configurations and power/knowledge configurations (van Assche et al., 2014, p. 80)
- policy mixes (policy subsystems) and socio-technical systems (Edmondson et al., 2019)

The word evolution is used in two ways: as a process of change which is *evolving* (instead of being implemented or controlled) and a process of change in which *variation, retention and selection* are important aspects (Kemp and Turkeli, 2021). Co-evolution refers to interlinked evolutionary processes that enjoy an element of autonomy but are also linked in important ways (Kemp et al., 2007).

Nature does not leap ("*natura non facit saltus*") and from the literature on innovation we know that the same is true for technology. Despite phrases of revolutionary technology, technical change is cumulative with occasional discontinuities (Bassala, 1988, Ziman, 2000). The interaction of variation and selection gives rise to dominant technologies, designs, fuels, standards, practices and expectations which are not easily abandoned (especially not if the costs of changeover are large).

The view that variation and selection are coupled is nowadays widely shared among innovation scholars. The interaction may give rise to evolutionary patterns, based on variation and selection resulting in trajectories that exercise selective pressures on radical novelties that break away from those trajectories, and which, because of competition from well-developed alternatives, are able to exist and grow in niches, places where selection pressure and resources are congenial to the existence of an innovation (Schot, 1992, Kemp et al., 1998).

Whereas in ecology, regime resilience is viewed in a positive light, for achieving sustainability goals the resilience of environmentally harmful regime practices and technologies acts as a great barrier to sustainable practices. The big question for steering is: how to initiate and accelerate system changes whose features are not perfectly clear and oftentimes underdeveloped compared to the existing systems?

In this section, we discuss three models for working towards transitions: collaborative governance, evolutionary steering and adaptive governance. All three deal with complexity, normativity and uncertainty in an action-oriented way and have mechanisms of self-correction and adaptation which is necessary for transformations which cannot be planned and implemented from the top, but which

must find solutions to demands for participation, fairness in outcomes, unintended effects in order to remain legitimate and secure continued support from societal stakeholders.

Collaborative governance refers to a mode of interactive governance that is deliberative, multilateral, consensus-seeking and oriented towards joint production of results and solutions (Ansell and Gash, 2008). The experiences with it can be used. Successful practices depend on a history of collaboration, trust building, mutual recognition of interdependence, shared ownership of process and openness (and attention) to exploring mutual gains. Collaborative governance works with the improvement perspectives of different actors. It often involves (and requires) social innovation in the form of cross-sector partnerships (resulting in new value networks) and new dependencies and roles (Diepenmaat et al. 2020; Velter et al. 2019). An example of collaborative governance is the Markemodel. In the model, used in the Achterhoek region in the Netherlands, regional authorities work together with the farmers and NGOs to determine on a regional scale what achievable quality goals are in the field of water quality, biodiversity, ammonia and nitrate emissions and agricultural nature management and search for economic mechanisms to make this possible. A system of stacked rewards, including payments for ecosystem services, is part of this.

For learning about different options for dealing with sustainability problems, in an experience-based way a portfolio approach may be used which relies on the management of variation, selection and retention. In models of evolutionary steering, the focus is on *altering the dynamics of variation and selection* (Nill and Kemp, 2009). This can be done by nurturing variation and fostering coordination and adaptation of the selection environment through innovation policies and environmental policies. Path dependencies are created in desirable ways through strategic niche management (Kemp et al., 1998,) and time-strategic policies (Sartorius and Zundel, 2005). This can be done for specific innovations. A more comprehensive policy for changing the dynamics of variation and selection is by setting long-term goals and to co-manage portfolios of options in a forward-looking and adaptive way. The role for governments is to mobilise actor networks, support research, and innovation activities in promising paths. A mechanism of self-correction based on policy learning and social learning is part of transition management. It offers a framework for policy integration, helping different political actors and ministries to collaborate. Transition management is not done by a transition manager but consists of a set of principles informing transition endeavours by partnerships involving public and private decision makers, NGOs and science (Rotmans et al., 2001; Kemp et al. 1997, Kemp, 2001).

The whole approach is set up as a *vehicle for sociotechnical change and policy change* in a coordinated manner. This is evident from the following quote from policy workers Frank Dietz, Hugo Brouwer and Rob Weterings:

> "It is clear that working on fundamental changes to the energy system can only be successful if the government adjusts its policy instrumentarium accordingly. This means that the policy for research and development, the stimulation of demonstration projects, and the (large-scale) market introduction must be brought in line with the selected transition pathways. In addition, the suggestions for new policies put forward by the platforms must be taken seriously. At this point, the government faces a major challenge, because much of the current policy was formulated based on the classic way of thinking that is characterized by a top-down approach and dominated by short-term objectives, implemented by fragmented and individually-operating departments and Ministries, on which market influences do not or hardly have any effect" (Dietz et al. 2008: 238)

The choice of official transition paths helps to work on long-term change (in a forward-looking, adaptive manner). This is done for the case of sustainable mobility through questions for innovation agencies and project managers such as:

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- *Does the project offer a contribution to a societal problem (challenge)? Which challenge is this?*
- *Is it informed by a vision of sustainable mobility? Is it designed to learn about this vision?*
- *Is it part of a transition path? If so, what path?*
- *Is it oriented towards demonstration or learning? Does it learn about sustainability aspects, markets, how various actors may be enrolled and how the project may be scaled up?*

As an innovation support approach the Dutch transition management model is a sophisticated approach which fits with modern innovation system thinking which says that policy should be concerned with 1) management of interfaces, (2) organizing (innovation) systems, (3) providing a platform for learning and experimenting, (4) providing an infrastructure for strategic intelligence and (5) stimulating demand articulation, strategy and vision development (Smits and Kuhlman, 2004). But it is also criticised for being technocratic, undemocratic and insufficient oriented towards municipalities, regional authorities and NGOs. Smith, Stirling and Berkhout (2005) together with Jacob (2007) criticise the idea of transitions occurring through niche development processes, pointing to other pathways and the need for regime-changing policies.

From the early experiences with transition management (described in Dietz et al. 2008 and Kemp, 2010) it has become clear that transition policies are being pursued too much in a sectoral way. A more integrated approach (aimed at multiple value creation) may achieve more in serving multiple agendas. For this the analytical framework for transformative social-ecological innovation (TSEI) can be used, which includes attention to institutions, power, output, outcomes and impact .

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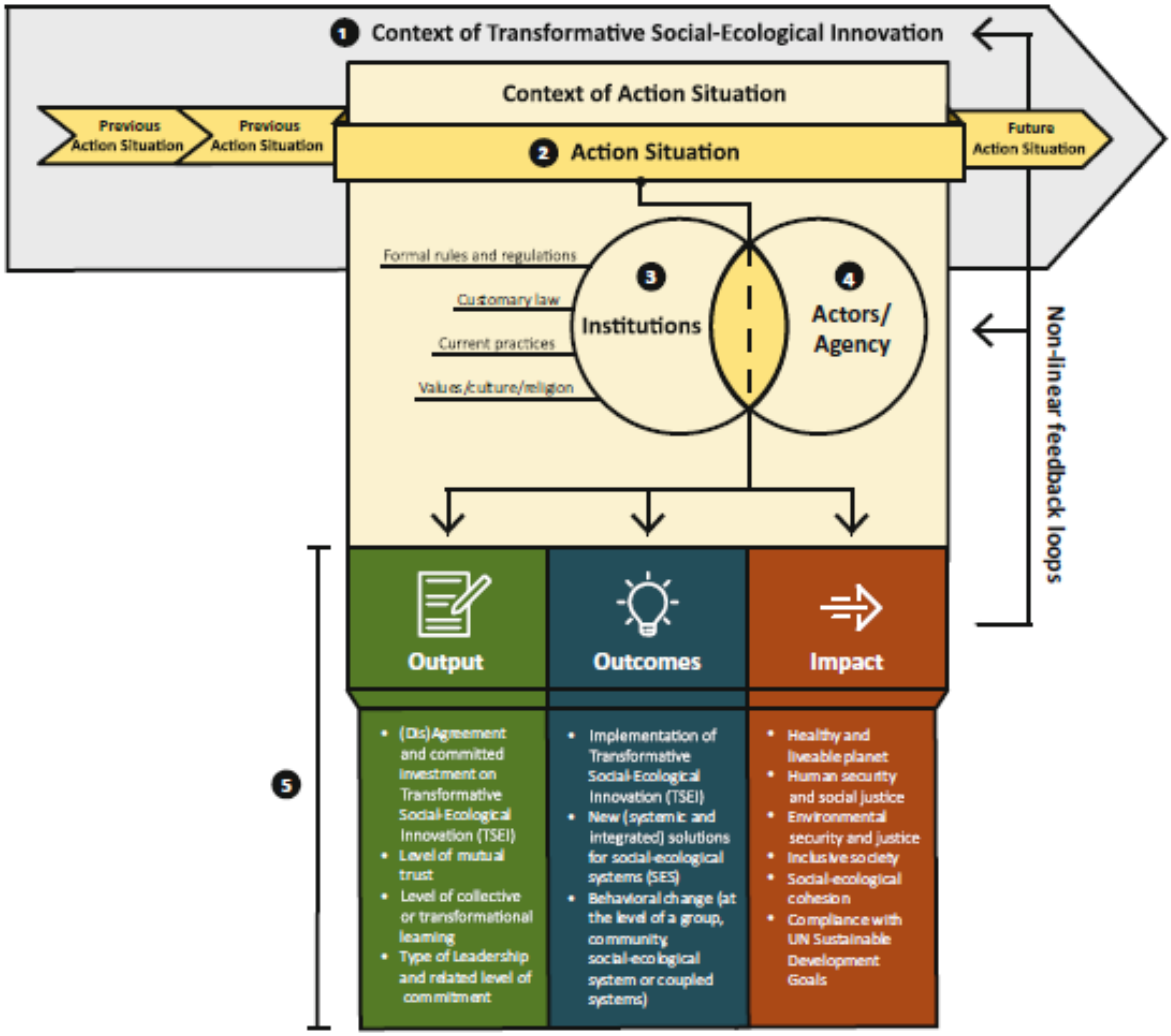

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Fig. 1 Analytical framework for Transformative Social-Ecological Innovation (TSEI) (Huntjens, 2021b)

For achieving Transformative Social-Ecological Innovation (TSEI) it is necessary to pay attention to the incentives, thinking, and actions of the actors involved and the conditions that influence this. Originating from political sciences, and negotiation theory more in particular, the mutual gains approach (MGA) offers valuable insights for complex multi-party problem solving. It has been successfully used in many negotiations, mainly related to trade, labour, and environmental negotiations (Susskind and Field 1996; Kirk et al. 2008; Rodríguez-Carvajal et al. 2010; Ryan and Wallace 2019), while also applied in citizen engagement, process facilitation, mediation, and conflict resolution (Islam & Madani 2017; Huntjens et al 2017; Yasuda et al 2018), for instance, to mediate in the Israeli–Palestinian water conflict (Huntjens 2017).

The mutual gains approach is highly valuable in situations where two or more people are negotiating to reach an agreement that may be of benefit to both or all of them (Consensus Building Institute 2014). In the search for mutual gains, participants are encouraged to explore more ways to create more value (i.e. to increase the pie) and generate a broader vision on sharing benefits. To illustrate, whenever action is taken to remedy environmental problems, the benefits also cascade: for instance, nurturing wildlife and flora in a wetland can also reduce water pollution and soil erosion, and protect crops against storm damage, alleviating water scarcity and allowing for more food production. In

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other words, working on one aspect of human security (i.e. environmental security in above example) may contribute to other aspects of human security (i.e. water and food security in above example). During mediation in the Israeli–Palestinian water conflict this aspect of multiple value creation was demonstrated by a multifunctional usage approach, in which the same cubic metre of water is being used by multiple users at different points in time before it flows into the river, among other thanks to centralized or distributed waste water treatment and recycling (Huntjens 2017). A central tenet of the MGA-approach is that a vast majority of negotiations in the real world involve parties who have more than one goal or concern in mind and more than one issue that can be addressed in the agreement they reach.

In the case of Rondeel eggs, five functionalities are being combined: animal well-being, compact use of space, the collection of eggs should be labor-extensive, efficient removal of chicken manure, and affordable price for consumers. With the help of design thinking and multi-actor management, the five requirements were all met. Animal well-being had to be determined, which was done on the basis of animal behavior studies and discussions with environmental groups about animal well-being. The support of animal well-being groups helped to win over support from consumers and the higher retail price for the eggs paid for the extra costs in connection to the newly built system and use of more healthy chicken feed. The eggs are packaged in compostable package material based on potato flour, in an eye-catching design. The eggs are sold directly to a big retailer (AH) where they are part of the AH "pure and fair" product line, in which they are sold for an extra price of 10 cents per egg (Diepenmaat et al., 2020). The outcome emerged from a transdisciplinary research project based on reflexive interactive design (Bos and Grin, 2012). RIO is an approach for doing reflexive modernisation "that adopts design of both the technical and social features of societal systems for production and consumption as its central activity and focus of deliberation". The wide scope of value creation helps to bring a wide range of stakeholders in the project: "The definition of both the problem and the solution takes place in a reciprocal and iterative argumentative exchange between stakeholders including the people and people needed for implementation". This helps to find radical solutions that are feasible. Benefits for society are safeguarded by NGOs and authorities, who are invited to adopt a cooperative approach. Responsibility is secured via *responsiveness* (to environmental and social justice & well-being organisations) and design activities of a socio-technical nature. Interdependent activities and practices are made a subject of discussion and negotiation.

For dealing with complexity and uncertainty, adaptive planning and forms of governance aimed at social learning are advocated: "social learning builds upon well-established traditions from participatory development, but puts learning and collective change at the centre of engagement" (Kristjanson et al., 2014). Attention to social learning is part of a broad and diverse field of governance studies that propose adaptive governance (e.g. Folke et al. 2005; Huitema et al. 2009; Termeer et al. 2010; Huntjens, 2011, Huntjens et al. 2011; Ison et al. 2013; Chaffin et al. 2014), reflexive governance (e.g. Rip et al. 2006; Leach et al. 2007; Hendriks and Grin 2007; Voß and Bornemann 2011; Voß and Kemp 2015; Feindt and Weiland 2018), and deliberative governance as new pathways to sustainability. These concepts share a focus on addressing ambivalence, complexity, uncertainty, and distributed power in societal change. Beyond attention to social learning, it is desirable to give attention to issues of fairness (in terms of the distribution of benefits, risks and costs), the monitoring of outcomes and policy learning about policy effects and conflict resolution mechanisms. In Huntjens (2021a) such aspects are referred to as "institutional design principles" relevant for TSEI aimed at the sustainable management of shared resources (based on Huntjens et al. 2012 and Ostrom 2005).

Table. 1. Institutional design principles relevant for TSEI (Huntjens, 2021a)

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Institutional design principle	Explanation
Adaptive, reflexive and deliberative approaches to governance	Governance taking account of ambivalence, complexity, uncertainty, and distributed power in societal change.
Equal and fair (re-)distribution of risks, costs and benefits	Through the involvement and strong representation of groups and stakeholders who will be affected or are particularly vulnerable.
Arrangements for collective decision-making	To enhance the participation of groups and stakeholders in decision-making processes.
Reflexive monitoring	This provides a foundation for reflection and social learning, while at the same time supporting accountability.
Conflict prevention and resolution mechanisms	Prevention and resolution of conflicts is possible through a variety of mechanisms, such as appropriate benefit sharing arrangements, mutual gains approach (see section 4.8), timing and careful sequencing, transparency, building trust, and sharing or clarifying tasks, powers and responsibilities.
Embedded activities / polycentric governance	Governance and management at a level of scale that does the most justice to the complexity of socio-ecological systems. For example, in European law this is similar to the principle of subsidiarity: social and political issues should be addressed at the most immediate or local level.
Policy learning	By exploring uncertainties, considering alternatives and 'reframing' problems and solutions, as well as policy experimentation: a deliberate and coordinated activity (e.g. pilot projects) to develop and test new policy alternatives.

In reality, issues of fairness and anger get expressed in a less deliberative way, via protests and politics. In France, a fuel tax resulted in a revolt by people wearing yellow jerseys. But it also led to the creation of a citizens' assembly called “The Citizens Convention for Climate” which produced 149 proposals, many of them with near universal support.[4] Parliament adopted 40% of the proposals by the convention. The Citizens Convention for Climate did not replace existing forms of governance but changed the system of pluri-centric governance.

[4] https://en.wikipedia.org/wiki/Citizens_Convention_for_Climate

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Governance is subject to evolution. Adaptive, reflexive and deliberative approaches are gaining influence. In general, adaptive management and transition management provide a number of important insights for Transformative Social-Ecological Innovation, of which the importance of collective learning processes and social networks for coping with uncertainty and enabling change stands out. Such new approaches are often additional to existing approaches and one challenge for sustainable development is to adjust or replace sectoral approaches which offer a barrier to integrative solutions.

A valuable reflection on governance is provided by evolutionary governance theory (Van Assche et al., 2014). EGT understands governance as radically evolutionary:

> "all elements of governance are subject to evolution, they co-evolve, and most of them are the product of governance itself. The perspective creates new spaces of analysis and new spaces for and modes of intervention. It also envisions new limitations to intervention. The dichotomy between market and state might dissolve and new variations are likely to occur. Yet one cannot simply redesign a capitalist democracy, nor any other regime, or any other linkage between economic and political domains (Allina–Pisano 2008; Verdery 2003). One cannot jump from each branch in the evolutionary tree to each imaginable other branch. Evolutions are marked by dependency (Van Assche, 2014, p. 5).

EGT considers "everything a product of evolution, both elements and structures, their interaction and the rules of transformation" (p. 9) and holds that actors in a governance path cannot freely change the course of governance because of three dependencies: path dependence, interdependence and goal dependence (Shtaltovna et al. 2013; Van Assche et al. 2011). Path dependence refers to legacies from the past, interdependencies to interdependence between actors and institutions in a governance process, goal dependence is dependence on the future: the influence of shared visions or plans, in the form of ideas of what is needed, desirable and possible.

EGT is mindful of the discursive dimension in upholding and (attempts at) altering forms of governance: "governance paths connect sites of narration, of narrative reconstruction, and of discursive migration and transformation". The discourse dimension includes metaphors, open concepts and master signifiers. Viewing people as interconnected and embedded in nature is a metaphor, which decenters the (separate) individual as the central unit. Open concepts are seemingly vague concepts that nevertheless play crucial roles in the reproduction of governance. Examples are sustainability, spatial quality, identity, creative economies and innovation. Open concepts can act as a master signifier: "a signifier of a totality, a wholeness and completeness that cannot exist in reality, but is nevertheless desirable (Stavrakakis 1999)" (p. 55).

Master signifiers are ideologically charged and give meaning and unity to dispersed actions. They may also fall apart as a result of severe criticisms. The neoliberal view that says that markets and competition are good for society is currently under heavy attack, by those who are anti-capitalism and those who want a capitalism with a human face. But as the authors of Evolutionary Governance Theory (Van Assche et al., 2014) make clear, an alternative cannot be implemented from the outside by collective will but will emerge from processes of co-evolution of actor/institution configurations and power/knowledge configurations.

In policy, the need for sustainability transitions and the need for an alternative economy (one that is more inclusive, fair and environmentally responsible) is accepted but the need for synchronizing the various transitions is not well-considered. Because of this, innovation actors are likely to run up against dominant institutions of modernity: sectoral thinking, a focus on efficiency, sectoral laws and permits and a reliance on markets and triple helix arrangements for innovation (in which NGOs are absent).

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For dealing with problems of pollution, climate change and improving resource efficiency, governments often rely upon the efforts of regime players to contain negative effects through voluntary action and through soft forms of regulation. This usually does not bring much because the root causes behind unsustainability are left intact: the overriding importance to earn profits for shareholders and low prices for consumers.

A few quotes:

> (…) I find it fanciful to believe that the social problems being created by some companies will be resolved by other companies. Believe me, green retailing will not compensate for greedy polluting, any more than corporate social responsibility will make up for the corporate social irresponsibility that has become so prevalent (Mintzberg, 2014, p. 56)

> let's applaud companies that "do well by doing good", such as installing wind turbines and selling healthy foods. But let's not pretend that this will sweep across the corporate landscape as some kind of win-win wonderland. We cannot allow such hopes to deflect our attention from the fortunes being made out of sheer exploitation. Many companies are doing well by doing bad, while others are doing fine by sticking to the letter of the law (Mintzberg, 2014, p. 57)

The imaginaries of a green economy (UNEP) and green growth (OECD) help governments to do more in terms of supporting green businesses but are bound to result in a slow and gradual greening. The response of the old economy to societal challenges is heavily influenced by old logics, which differ from logics from an alternative economy based on a Natural Social Contract. Alternative economy practices based on transformative social innovation have problems of going to scale. A possible way out is via penta helix networks. Repurposing capitalism via special partnerships with NGOs and governments can achieve more by aligning individual gains with collective gains. Such an approach is advocated by Henri Mintzberg and by the authors of *Accountability* (O'Leary and Valdmanis, 2020) in the form of a call for citizenship: citizen buyer, citizen worker, citizen saver and citizen voter. Citizenship is viewed (by those actors and ourselves) as key to making capitalism more responsible. New business models are part of this, but they depend on special partnerships and a facilitating context.

Truly repurposing and re-orienting capitalism depends on institutions that go against exploitation of people and nature. The process of creating those institutions can be taken up in a reformist way but also in a more transformative way under the name of a Natural Social Contract. Social contract theory says that people live together in society in accordance with views on moral and political rules of behavior, which serve as a point of orientation for stakeholders. It is partly contained in law and policy but not limited to this. Attention to a Natural Social Contract draws attention to negative effects to be avoided and the need for transformative governance: how governance can become more oriented to transformative change. A Natural Social Contract is an example of a master signifier for societal development which helps to discuss normative issues together with issues of effecting change.

3: Quest for a new social contract

Although this is not so much recognised as such (in the words that we use for it), another social contract is emerging which seeks to counteract environmental degradation and rebalance society (O'Brien et al. 2009; Schellnhuber et al. 2011; Jennings 2016; Huntjens, 2019, 2021; Omtzigt, 2021; Shafik, 2021). The social contract includes missions for making society more fair and equal and more sustainable. In the EU and many countries, sustainability is approached via three transition initiatives: the transition to a low-carbon economy, a circular economy and sustainable agriculture. The transitions meet with resistance from incumbents and populist leaders and may also run into

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opposition from poor and disadvantaged people (who are angry about their own economic prospects and are strongly opposed to measures that affect their income and living standards negatively, as shown by the revolt to a diesel tax in French).[5]

The core philosophy of a social contract, as articulated by Aristotle, Hobbes, Rousseau, Locke, Kant, Rawls and other political philosophers, emphasizes an implicit arrangement between citizenry, their respective societies, and legitimate government to create a healthier and safer society together. Social Contract theory states that legitimate, collective governance arrangements should be informed by the consent of the people (Weale, 2004), and this theory, therefore, informs our modern concepts of democracy. The question remains, however, if a social contract focused on individualism, materialism, privatisation, short-termism, the free market, and with a singular focus on economic growth, while paying little attention to social and ecological values, can adequately respond to the challenges of the 21st century. As Albert Einstein said: "we cannot solve our problems with the same thinking we used when we created them". The fact that ecological vulnerability translates into social and economic vulnerability, and a complex set of security and justice challenges, is an important omission in Social Contract theory, and political theory and economics more in general. 'Nature has had little or no intrinsic value for most (but not all) Social Contract theorists' (cf. O'Brien, 2012).

'Increasing wealth inequality, financial crises, ecological crisis, climate change, trade wars, migration issues, and even vulnerabilities to the coronavirus pandemic (related to global dependencies and interconnectedness), can be traced back to two common denominators: First, the schism between humans and nature and the dominant anthropocentric worldview that arose during the Enlightenment era. And second, the capitalist economic logic and in particular the unsustainability of infinite economic growth in a finite world and belief in the infallibility of the free market that arose after the Second World War' (cf. Huntjens, 2021, p. 171).

Until recently, it seemed that society and government should serve a well-functioning market economy. This is based on the idea that if the market economy functions well, all layers of society could lead, at least tendential, a meaningful (in terms of work) and livable (in terms of income) existence. That myth has been debunked by academics (Atkinson, 2015; van Bavel 2018) and the lived experiences of precariate workers, which increasingly include substantial parts of the former middle class. According to Paul Collier (2018, p. 4), we are living in a new era, where "capitalism's core credential of steadily rising living standards for all has been tarnished: it has continued to deliver for some, but has passed others by".

> "Since the 1970s, many Western countries have too easily subscribed to an economic model that if the market arranges it, then it is better and more efficient. However, this has left us with market-based societies characterized by individualism and self-interest, materialism, privatisation, short-termism, and a dogmatic focus on profit and economic growth. The result diminishes social and ecological values and instead prioritizes excessive production, consumption and depletion of our natural resources and raw materials. This decades-long focus has resulted in loss of biodiversity and key ecosystem functions, as well as environmental degradation, and the depletion of natural resources and raw materials. We now experience first-hand that ecological vulnerability translates into economic and social vulnerability, and a complex set of security and justice challenges." (Huntjens, 2021, p. 171)

Looking ahead, our societies will need to rethink how we inhabit and cultivate our planet and keep it healthy for future generations. Making these changes involve profound, long-term, and systemic

[5] The following sections (until 'Transformative Governance'-section) are from Huntjens 2021

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changes in society's common practices, policies, institutions and philosophies that will rely on new knowledge and skills, a rebalancing of society which are problem-driven and based on alternative master narratives.

The nature of the societal, environmental, and economic problems we face today requires a new social contract, coined as a Natural Social Contract, as extensively described and substantiated in 'Towards a Natural Social Contract' (Huntjens, 2021). It concerns a society that is more humane and fairer and above all less destructive to people and nature. 'A Natural Social Contract does justice to a human being's natural state (human life is group life) and to the natural position of humankind and society within a larger ecosystem, that of planet Earth. It regards society as a social-ecological system, focusing on people as members of a community and as part of a natural ecosystem. A Natural Social Contract emphasizes long-term sustainability, and general welfare by combining human and nature, and recalibrating while at the same time putting an end to unlimited economic growth, overconsumption and over-individualisation, for the benefit of ourselves, our planet and future generations' (cf. Huntjens, 2021, p. 4).

The development of a Natural Social Contract is a multifaceted transition process. Thinking about this is still in its infancy. It will involve a different balance between the market, government, and the 'plural' sector [6](Mintzberg, 2015) that must be gradually developed via partnerships and institutions of responsibility. The plural sector is home to citizens acting individually and collectively, who can 'propel' the processes organized in the public and private sectors towards a constructive social impact, including through citizens' initiatives and introducing the citizen perspective into those other sectors. sectors. It includes not only civil society organizations and activist NGOs, but also, for example, associations, clubs, cooperatives, foundations, religious bodies, social enterprises, volunteers, and citizens' initiatives. The role of the plural sector means that the roles and playing fields of the state, market and citizen must be redefined, and therefore also that the citizen will have to define his/her own role in the social transition differently. Examples of redefinition are the centralization of purpose and values by commercial companies (that pay taxes properly in the Netherlands) and enterprising social organizations. Accepting social responsibilities makes organizations more hybrid. Collaboration with other parties contributes to this and leads to the formation of a 'hybrid sphere' (Avelino and Wittmayer, 2014; Avelino, 2016) (shown in Figure 2).

[6] A healthy society requires a respected public sector, a responsible private sector, a robust plural sector, and a healthy planet (Mintzberg, 2015). This stands in contrast to experiences of crude government, crass business and closed communities.

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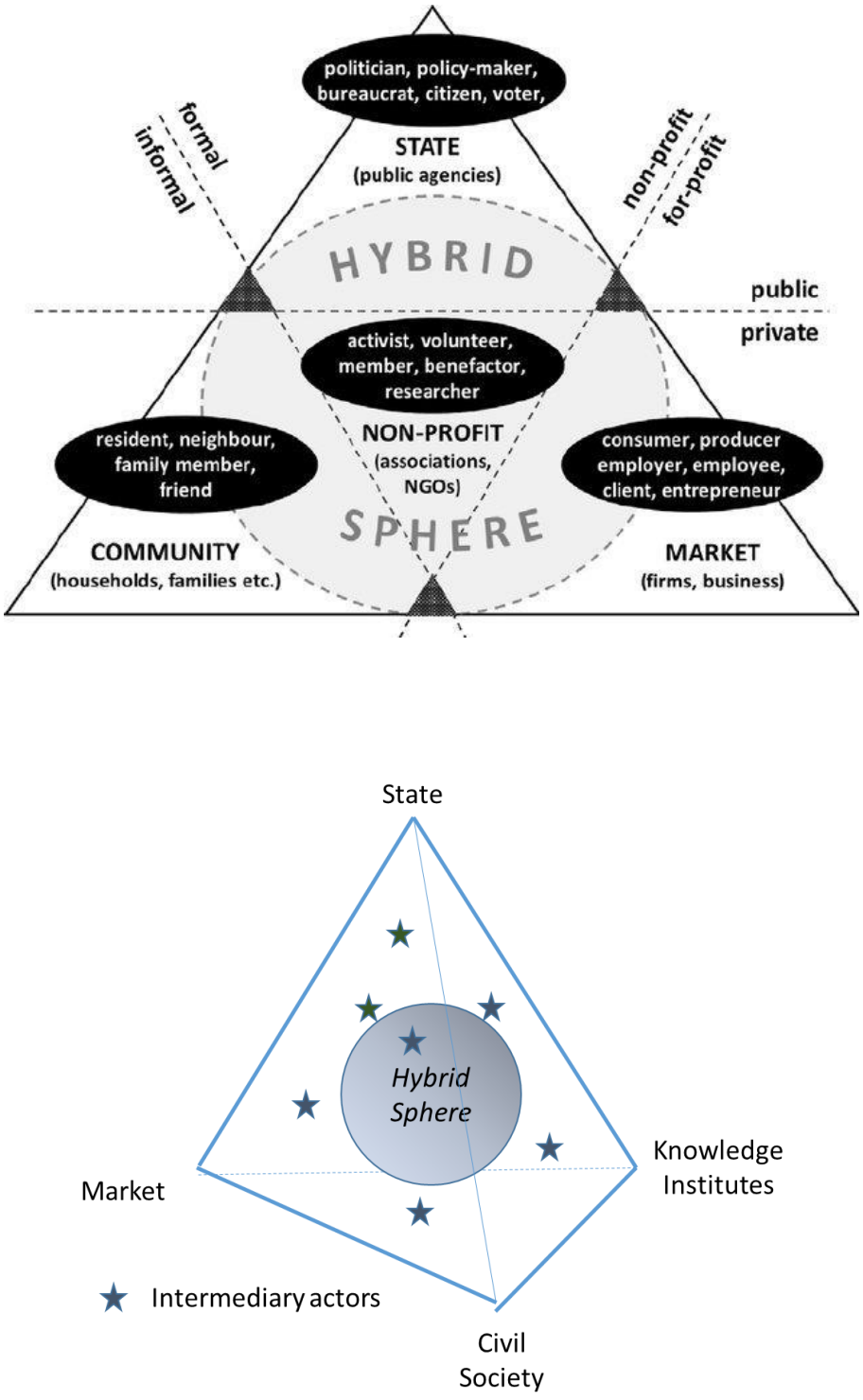

Figure 2: The Hybrid Sphere is a societal space for cooperation between e.g., governments, market, knowledge institutes and civilians. A Natural Social Contract is established in such space. The top figure is from Avelino and Wittmayer (2014), the below figure based on Kemp et al. (2021)

The outline of a Natural Social Contract serves as a counter-proposal to existing social contracts. A Natural Social Contract implies an existential change in the way humankind lives in and interacts with its social and natural environment. To navigate this transformation, we will have to find new ways to inhabit and cultivate our planet and keep it healthy for future generations. In this paper, we argue that the social-economic, ecological and political transitions (to fair and decent pay, ecological sound practices, and the safeguarding and deepening of democracy) must be synchronized with each other

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so that they constructively reinforce and accelerate each other. This synchronization requires transformative governance based on co-evolution across several interrelated dimensions, i.e. social, economic, ecological and institutional dimensions of a social contract. Possible leverage points for a societal transformation towards a Natural Social Contract, through transformative governance based on co-evolution across several interrelated dimensions, have been visualized in figure 3 below.

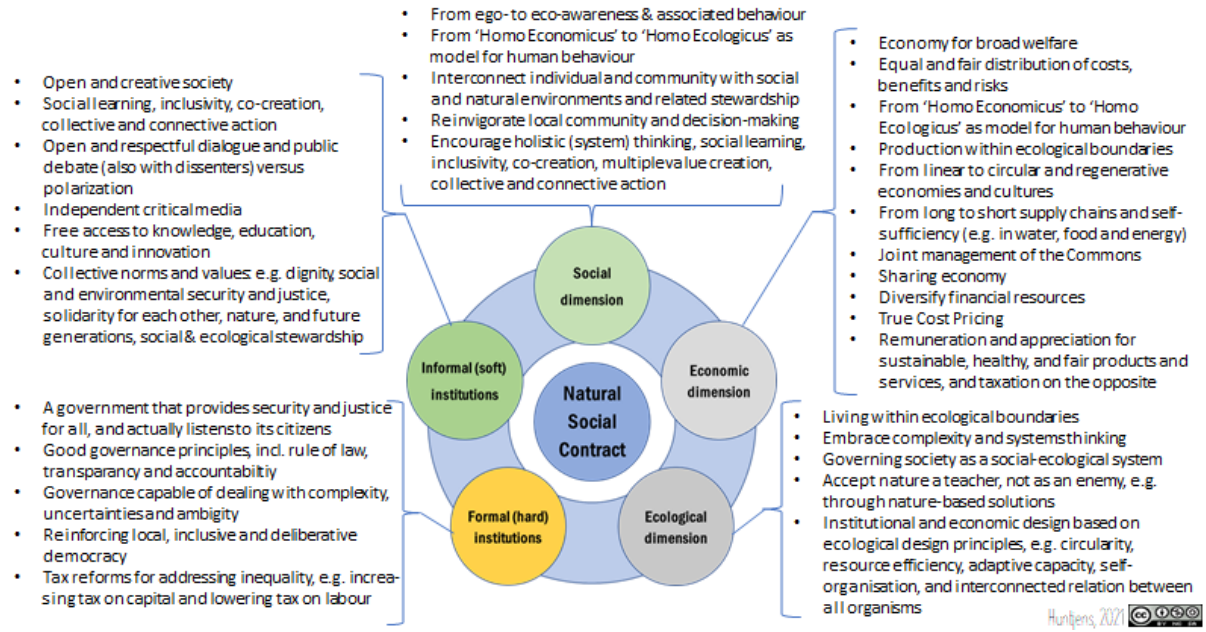

Figure 3: Possible systemic leverage points for a societal transformation towards a Natural Social Contract, through transformative governance based on co-evolution across several interrelated dimensions (this figure is a synthesis of table 3.4 in Huntjens, 2021)

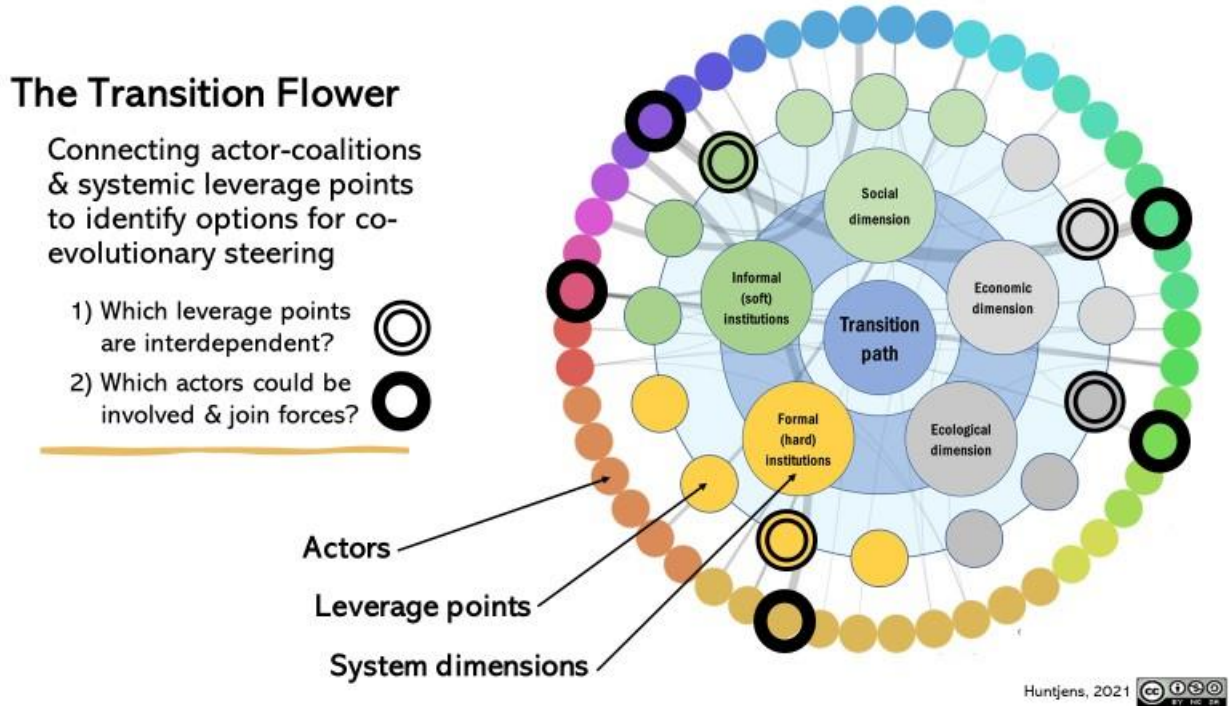

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Figure 4: The Intervention Flower as a tool for identifying options for co-evolutionary steering through connecting actor-coalitions and interdependent systemic leverage points. The transition path in question is always context-specific, path-dependent and goal-dependent.

Figure 2 shows a compilation of possible systemic leverage points, each of which is difficult to achieve since it involves quite fundamental change. Within each systemic dimension there is a multitude of interconnected heterogeneous components. All issues are getting some attention but the links and need for achieving progress in multiple dimensions is not well-understood and considered. Given that these dimensions are often intertwined in practice, changes or problems in one dimension thus affect all dimensions. Finding leverage points alone is not enough; systemic change also requires good insight into the interrelationships, for example, via (non-linear) feedback loops, and how the desired outcome can be achieved with maximum synergy effects and minimal 'trade-offs' (Kennedy et al. 2018). The connections between the dimensions must enable permanent coevolution, when working on transformative change, but also means a high degree of path dependence, with choices from the past determining the current structure. This path dependency is a reason for institutional stability, since institutional pressures force organizations to adopt similar practices or structures to gain legitimacy and support (DiMaggio and Powell 1983, 2000), and these institutions become firmly rooted in taken-for-granted rules, norms, and routines (Seo and Creed 2002). A societal transformation will always be a battle to overcome vested interests, change existing systems and paradigms. This explains, among others, why major societal transformations take on average about 30 years, which is also a realistic timespan for some of the fundamental systemic changes required for a Natural Social Contract (Huntjens, 2021).

Adopting a whole-of-systems approach helps recognize synergies and trade-offs, moving beyond linear, to more circular, inclusive systems (SAPEA 2020). 'Systems thinking is about seeing life in motion, recognizing that the big picture is rarely static, but almost always a web of factors that interact to create patterns and change over time' (Martella et al. 2019). The leverage points themselves (in figure 3) are not controversial; many people will consider them lofty and desirable, but making progress along those lines in a co-evolutionary way is difficult and often an uphill battle. Figure 4 shows "The Intervention Flower" as a tool for supporting co-evolutionary governance through connecting actor-coalitions and interdependent systemic leverage points. In particular, this tool could be used as a systemic tool for agenda-setting during a TSEI-process as shown in figure 1. The transition path in question is always context-specific, path-dependent and goal-dependent. An example of such an application for a specific transition path is provided in figure 5, detailing possible leverage points and key variables for the transition to nature-inclusive agriculture & agro-ecology in the Netherlands. Obviously, this transition path is part of a larger transition process towards a sustainable food production system, and part of a larger transformation in the food system as a whole, which also includes the transition to sustainable and fair supply chains, and to sustainable and healthy food consumption, among others. Complexity is increased due to interdependence with other agendas (e.g. on water, energy, spatial planning, housing). An interesting observation by Huntjens et al. (2022) is that clear differences emerge between the scale levels (i.e. local, subnational, national and international level). For example, where more key variables can be found in the economic dimension at company level, this picture is different at subnational level, where fewer key variables can be found in the economic dimension, while there are more key variables in the social, ecological and institutional dimensions. This means that an actionable agenda per dimension, and between dimensions, may differ depending on the scale level at which action is taken (ibid).

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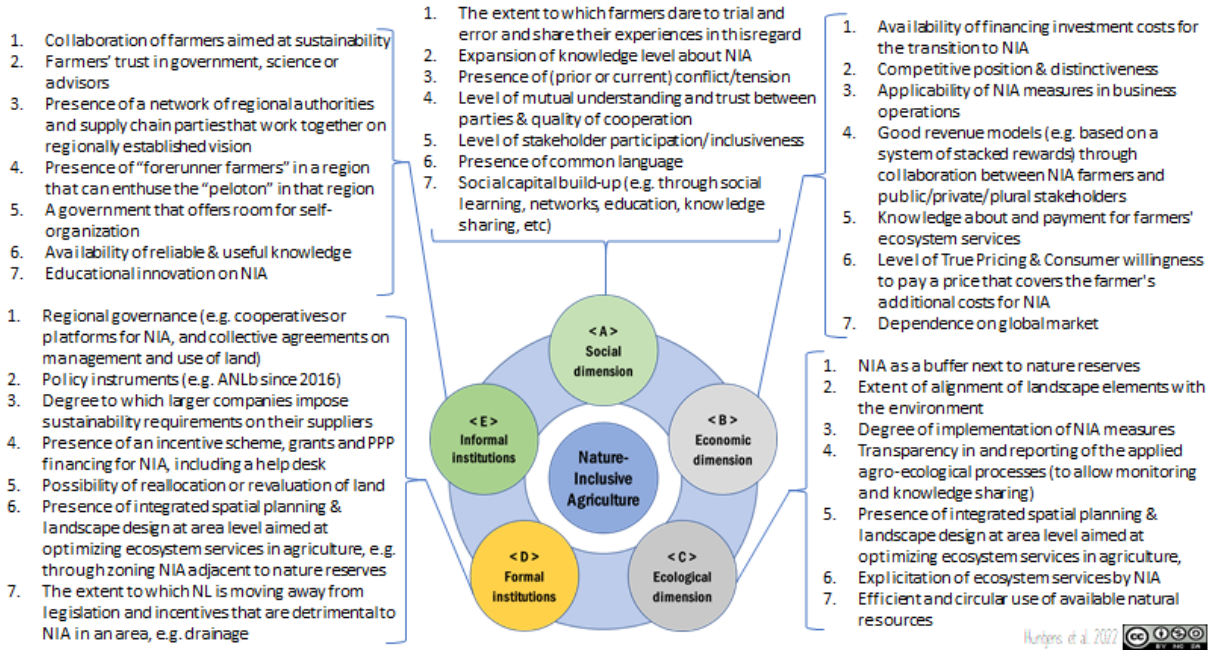

Figure 5 - Possible leverage points and key variables for a transition to nature-inclusive agriculture (NIA) in the Netherlands (at subnational level) (Huntjens et al 2022)

The case of climate change mitigation is a good example of the difficulties of altering the course of development, and an illustration of a policy journey. If we use the Kyoto protocol of 1997 as a starting point, we have 24 years of climate policies. In those 24 years, big energy users have been able to defer strong policies against fossil fuel use. In the European Union, energy users were able to make money from the emission trading system in carbon emission rights (estimated at 30 to 50 billion euros).[7] The last two years, thanks to a number of policy changes, the price of a carbon right has been rising to 30 euro per ton in Dec 2020 and further up to 73 euro per ton in November 25, 2021. The prospect of high carbon prices and COPs in the wake of the Paris Agreement tells the financial industry that fossil fuels are a possible liability and telling electricity producers that their future is not in fossil fuels. In 2021, the announcement of the new IPPC report (after a summer of flooding in Europe and drought-related fires in America and Asia) silenced climate deniers and boosted the view that quick and drastic action is needed. Governments are also accepting the need to reform the labour market and deal with poverty and provide social care in different ways. In addition, the 2008 global credit crisis, the COVID-19 pandemic (since March 2020) have highlighted the painful vulnerabilities of today's world and the need for fundamental change in the form of a more sustainable, healthy, and just society.

Hence, a crucial issue is: through what generative mechanisms can a transition to a Natural Social Contract occur given: i) the orientation to a for-profit market economy and interests in its continuation, ii) political parties who are unwilling to find common ground (because of ideological differences and desires for dominating others), iii) the evolutionary nature of change and distributed nature of power?

Whereas the obstacles to transformative change are formidable, we think that the following factors contribute to a shift to a Natural Social Contract: i) the inability of the exploitative economy to cater

[7] https://www.nrc.nl/nieuws/2021/06/07/onderzoek-industrie-makente-profit-op-gratis-co2- emission rights-a4046363 See also https://www.groene.nl/ artikel/de -industrial-lobby-is-incredibly-strong

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to equality and environmental responsibility in a big way, ii) the growing dissatisfaction with exploitative modes of production, iii) the creation of new imaginaries and the creation of an alternative economy based on values of responsibility, mutual care and human flourishing, iv) growing attention in each of these transitions to issues of justice, social learning, co-creation and collective action from a systemic perspective, acting as stepping stone for further change, including the institutionalization of transformative change and the co-evolutionary governance aspects (discussed in the previous section). Each of these developments will cause governance to change, through the actions of coalitions for transformative change.

Governance that does not have transformative goals will achieve little in this regard obviously. But we are now seeing the formulation of transformative goals for sectors and the economy by policy actors and elites. Towards this aim a number of steering approaches have been developed, such as transition management, adaptive planning and co-evolutionary governance. The recognition of a Natural Social Contract and the need for changing economic institutions can be expected to make more progress to transforming sectors and the economy. A change to a Natural Social Contract comes down to a transformative process in the sense of a transition from the existing economy (with instances of sustainability) to a well-being economy where the concern for people and nature is a central concern for business, consumers, government and science who are all devoted to this in some way. The European Green Deal strives to deal with climate change in a fair and just way. Building back better is the motto of the Biden administration in the US. Such approaches have transformative elements but they are relatively weak. They can come more pronounced over time, but this requires a reconsideration of basic economic institutions and social institutions with which the economy is connected. Social contract thinking is useful for this. But the interaction between the economy and society implies that both issues have to be considered as inherently linked. Calls for a citizen capitalism and rebalancing society are attempts to consider the link between economy and society but they fall short in terms of explaining how an economy oriented to well-being differs from the old economy. In an attempt to explore this better, Table 2 puts the well-being economy based on a Natural Social Contract next to the old economy, with respect to the overarching goal of the social contracts on which they are based, the hegemonic worldview, the role for individualism, the development paradigm, core policy concerns, response to climate change, innovation models, basis for social relations, vision of society, and view on of the natural environment.

Table 2. The old economy/social contract and the well-being economy with a Natural Social Contract

Key characteristics	**Old economy / social contract**	**Well-being economy / Natural Social Contract**
Overarching goal of the social contract	Protection (e.g. of property rights), maintenance of order, individual freedom	Broad welfare, through human security, social and environmental justice and planetary health. Well-being is pursued in less materialistic ways.
Worldview	Anthropocentric. People work for pay which allows us to consume.	Ecocentric or Earth-centric (people and society as part of larger ecosystem, that of planet Earth). Labour is a source of uplifting instead of a drag.

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Vision of individual	Homo Economicus: a rational person who pursues wealth for his own self-interest; individual isolated from others.	Homo Ecologicus[8]: individual in relation to social and natural environment, with focus on solidarity, unity, connectivity
Development paradigm	Neoliberalism: government is responsible for creating the underlying conditions that the free market requires in order to flourish	Hybrid sphere: collaboration between governments, businesses, knowledge institutions, civil society, and an important role for citizenship, characterized by penta-helix models and based on multiple value creation.
Policy concerns	Security and economic opportunity	Empowerment, social justice based on equity, environmental security and justice, planetary health
Response to climate change	Green growth and green technology (mostly large scale). Carbon capture and storage as important solution.	Cooperatives and platforms to ensure that costs and benefits of energy transition are fairly distributed
Innovation models	Triple Helix, shared value creation	Penta helix models based on multiple value creation, and presencing/Theory U[9]
Basis for social relations	Utilitarian	Mutual respect, solidarity, togetherness, social and environmental stewardship
Vision of society	Individualistic	Society is a social-ecological system, and individual considered in relation to social environment (human life is group life) and natural environment
View on the natural environment	Ecosystem is a black box; Natural resources to be used exclusively by humans, to serve the needs of humanity	Earth is the whole of which humans are subservient (but impactful) parts. Institutional and economic design based on natural design principles.

Source: authors

Several of the institutions for an economy for the common good already exist but they are insufficiently recognised as transformative. The greater task is to get rid of the old economy. Achieving this transition is beyond the ability of politics and business, but it can be made a joint concern in the same way as the SDGs are a joint concern. A more responsible economy oriented to well-being critically depends on alternative business models: without this business will remain resistant. In the literature on sustainability transitions, policy mixes are advocated as the way to foster transitions (Kern and Rogge, 2018; Rogge and Reichardt, 2016). Policy mixes should go beyond the stimulation of alternatives in niches but also include policies of control and the phase out of fossil fuels. Thus far, policies of control have been weak but the Paris accord and EU ambitions about climate mitigation and sustainable agriculture have made clear that more is needed in terms of the

[8] The concept of 'Homo Ecologicus' recognises that humans are part of a social and ecological context on which they depend for their well-being. It does not deny that people can be selfish and driven to material gains (Homo Economicus) but says that this denies another reality, of people being social and dependent on nature for their well-being.

[9] Based on the work of Claus Otto Scharmer.

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discouragement and discontinuation of fossil fuel technologies and unsustainable agricultural practices. More control may come from international obligations but also from the creation of a Natural Social Contract which aligns the energy transition with goals of making the economy more circular, social and fair. Control is thus part of a well-being economy and Natural Social Contract but not limited to it. The shift to a NSC requires new forms of horizontal governance (the Marke model is an example of this) and growing attention to values of care and responsibility, as something to be served in economic ways thanks to special partnerships between investors, manufacturing companies, farmers, government and consumers. This is not a task a government can preordain and requires a rebalancing of society (Mintzberg, 2014).

In the transitions literature too little attention is given to the need for a different social contract and the importance of social innovation for creating a more responsible, inclusive society and economy. Social innovation (based on self-organisation) defies instrumentation by government and is unsuited for a measurement and management approach. In the Technology Innovation System literature and most of the transition literature, social innovation is primarily studied in relation to technological innovation (not as a focal phenomenon itself). In so doing, important aspects of change (those having to do with ethics, government responsibilities, trust, and procedural and distributional justice) are backgrounded. For this reason, Huntjens (2021) has introduced the concept of Transformative Social-Ecological Innovation (TSEI) which is defined as "systemic changes in established patterns of action and in structure, including formal and informal institutions and economies, that contribute to sustainability, health and justice in all social-ecological systems" (ibid, page 86). Creating a sustainable and healthy future for societies will require institutional change and multiple parties, multiple sectors, and multiple levels of government to act and collaborate effectively. TSEI is based on processes of collective learning and multiple value creation in which different but interdependent parties learn to develop new knowledge and systemic innovations in a transdisciplinary approach.

TSEI requires special programmes and partnerships (with involvement of science, NGOs, government people and institutions). Intermediation is likely to be needed to align and modulate the different views and logics (Diepenmaat et al., 2020). Knowledge tools which make decisions of collaboration transparent and decidable are very useful for the managerial governance of collaborative projects, but insufficient for achieving external institutional change. Since system innovation requires changes in the orientation and practices of actors and changes in (sector-specific) rule systems (and perhaps even in meta-governance), an important question is: *how to deal with the external institutional context which is in need of change*? Doing an institutional analysis is not enough. The crux for achieving institutional change via institutional work lies in *involving* institutional actors (regional authorities, NGOs, standard setting bodies) in projects of change and in deliberations about institutional barriers: to enroll them in such processes and to make them think about (necessary and achievable) enabling conditions. This is especially important for projects that have to deal with the institutional frameworks of two sectors (for example, energy and waste) and that aim to create value for society next to value for the actors involved. A co-evolutionary perspective is useful for this, through the attention for interaction effects. Coordination is needed on two fronts: that of socio-technical agency and (external) institutional structure. The first concerns the development of novel practices in a partnership for innovation, the second is about achieving structural change in a coordinated. Bos and Grin (2012) coined the term 'Dual Track governance' for the coordination of distributed agency of actors in activities that are also focussed on structural change. Dual Track governance is part of what we call co-evolutionary governance. Co-evolutionary governance is a form of governance that is explicitly concerned with the co-evolution, through the use of integrated thinking, cross-sectoral partnership and attention to macro-issues next to meso-issues. The SDG agenda is a macro institution, championed by the UN. Without meso-institutions and momentous

developments it will achieve very little. A NSC is more fluid and conducive to fostering co-evolution, subject to decline and ascendance, but ultimately gaining power because of the need for structural change to deal with persistent problems.

One of the greatest challenges for a NSC and a wellbeing economy (based on the institutions in Table 2) is the creation of policies that *destabilise* dominant (socio-technical) regimes (Kivimaa and Kern, 2020) because such policies meet with resistance from incumbents (which is a big enough barrier) but another formidable barrier is the power of populist parties who are anti-elite and wish to discredit transition agendas as statist, anti-democratic and totally against the interests of "the people". This is why we attest such strong importance to the hybrid sphere (Avelino and Wittmayer, 2014; Kemp et al., 2021), as an open space for social innovation and transformative socio-ecological innovation. The hybrid sphere may encourage companies to abandon existing logics with the help of partnerships that hold them to higher standards and customers and workers willing to buy goods and work in companies that are more ethical and more oriented to their well-being as workers. The articulation of models for a more responsible economy by intellectuals and social movement leaders make such an economy more salient and compelling. But ultimately there have to be economic benefits for companies and consumers in a more responsible economy (Diepenmaat et al., 2019). This cannot be engineered from the top but will emerge in a bottom-up manner, guided by visions of a better world and partnerships for this (which means that it is a multi-level process). This is a huge challenge for a world in which getting rich is an important aim. However, the realization that this is not possible for all and comes at a great cost may encourage and sustain collective efforts. There is a recursive relation between citizen capitalism and a Natural Social Contract: they support each other. Thus far citizen capitalism is not an important point of orientation. Attention to a Natural Social Contract (about obligations and wishes to create a better world) may make a different economy a goal for society. The recommendations of Mintzberg (2014) about rebalancing society, those of O'Leary and Valdmanis (2019 about citizen capitalism, and the recommendations of Ostrom (2010) and Raworth (2017) about the commons and regenerative economy can act as foundational elements.

In our vision, the hybrid sphere based on citizenship plays an important role. The expansion and deepening of this, helps to find do-able projects and engage in dual track governance. It consists of a pluralistic endeavour based on different concepts and shaped by different circumstances. This fits with EGT, which contends that governance is always multi-level governance, with each path of governance always embedded in other paths and slow evolutions incorporating faster evolutions. Recognition of this could help to create institutions that promote integrated thinking and transformative social-ecological innovation and foster institutional work that is oriented at the replacement and adjustment of existing institutions next to the creation of new ones (Mahoney and Thelen, 2010; Lawrence and Suddaby, 2006).

The process of change towards a well-being economy is partly ideologically driven (based on lofty ideals) but also is problem-driven. The interaction of different (transition) agendas in a world that is functionally differentiated creates problems for each of the agendas. A fuel tax (and speed limit) caused a revolt in France and in the Netherlands the top-down implementation of renewable energy is leading to local opposition. The problems can be addressed in a reactive manner and they can be addressed through Dual Track Governance and institutional change at higher levels. In Dutch physical planning, the sectoral planning system is replaced by an integral planning system (Omgevingswet) which facilitates integrated thinking and collective action from stakeholders (which are needed for a well-being economy), but requires a good deal of collaborative governance and tools for integrated decision making. A Natural Social Contract may foster collaboration with actors and changes in

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governance (in and around projects of change and beyond these) but the governance system will remain complex and geared against many changes. But the non-disappearance of sustainability problems and continuous demand for deeper democracy and justice will foster change in governance and a social contract. Backlashes in democracy are happening and can be expected to occur in the future, but there is also the growth of a new consciousness about human responsibility and tools for multiple value creation.[10]

4. Four proposals for transition policy

In this section we address four problems with transition policy and policy more generally: the sectoral focus of transition policy, the weak steering power of government, distrustful citizens, and the need for changing socio-economic structures (as an important issue for politics and society).

A. Transition policy is often too sectoral, so that it does not take sufficient advantage of other agendas. Dutch policy between 2001 and 2009 was judged to be inconsistent (Kern and Howlett, 2009) and not very democratic (Hendriks and Grin, 2007). Attention to the contradictions between various agendas (sustainability, liberalization and democracy) helps to achieve better results.

B. Choices of instruments, direction and implementation matters receive too little attention. The Netherlands has high policy ambitions about a circular economy. Provinces have a circular agenda, but there is little power and money behind it. There are five 'transition agendas' and agreements such as the Plastic Pact and the Concrete Agreement, but voluntary action is paramount. Current innovation policies and mission-driven agendas are illustrative of the old-fashioned and blind belief that everything can be solved by stimulating technology, and therefore do not provide a sufficient basis for social innovation. A positive example is this regard is the Integrated Circular Economy Report (ICER), which provides an overview of the state of play of the transition to a circular economy in the Netherlands. The report describes actions by social parties and provides guidelines for government policy. Transition endeavours have to be institutionalized (via laws, agencies responsible for monitoring and evaluation) and should go beyond a push strategy by giving attention to strategic uncertainty, complex mutual dependence and a polyarchic power distribution in which partial interests have de facto veto power.

C. Too little attention is paid to the unrest that transitions entail. Many voters do not like the unrest inherent in transitions. Marc Oosterhout says: "*Voters don't like change; they are conservative by nature. They are for safety and security. You see this, for example, with technological innovations. They only succeed if innovations are in line with recognizable routines. Of course, you can change people and move them to new behavior, but that almost always goes through the way of certainty and trust.*"[11] A commitment to a just transition helps to win support and pre-empt resistance. This can be done through projects of co-creation and (de facto) regulations that the benefits of renewable energy projects (solar panels and wind turbines on farmers land) are distributed fairly. But even that may not be enough to take away feelings of anxiety. According to research by

[10] Two examples of such tools are the boundary work of Velter et al. (2021) for cross-sectoral cooperation and Theory U, an awareness-based social change methodology called Presencing (Scharmer, 2018) both of which are developed for making business more purposeful with the help of business models for sustainability.

[11] https://www.volkskrant.nl/columns-opinie/opinie-de-kiezer-houdt-niet-van-verandering-dus-moet-links-juist-vertrouwen-bieden~b2bfef86/

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Kennedy and Givens (2019, p. 661): “participants in higher social classes experience environmental concern in a way that is consistent with a broader sense of competency and control to positively shape the world around them, including the natural environment”, whereas “those in lower social classes experienced environmental concern in a way consistent with their broader sense of lacking power to influence their surroundings”.

D. **More attention is needed for the adaptation of structures.** Sustainable development can never be achieved through technology alone. Structures need to be overhauled (Bos and Grin, 2012), all innovation and transition researchers agree on this, but little is done with this insight. The triple helix model (cooperation between governments, knowledge institutions and companies for (open) innovation) works excellently for high-tech innovations but is not a good model for sustainability transitions (Diepenmaat et al., 2020) because it makes little or no use of civil society organizations and citizens, who are active in the hybrid sphere. Involvement of civil society organizations ensures that moderately sustainable options (such as biomass for energy production) are identified as such and that the capacity for change of civil organizations is used. Stimulating interdisciplinary research ensures that social science knowledge is used more and better.

The above recommendations not only aid sustainability but also contribute to a Natural Social Contract (NSC). The focus on multiple value creation helps companies and other organizations do things that are in accordance with elements of a Natural Social Contract and contribute to a further articulation and realization of an NSC (or elements thereof).

5. Conclusion

In this paper we discussed possibilities for achieving transformative change via co-evolutionary governance (forms of governance that are mindful of interaction effects and work simultaneously on agency and structure). Our argument is that sustainability transitions (in the energy system, agriculture and in making the economy more circular) will not succeed without a different economy and another social contract: a different alliance between citizens, society, economy and government, with the associated rights and duties of care (for the environment and the well-being of others, including future generations). A different social contract is not only desirable from the point of view of sustainability and fairness, justice and equality, but is also necessary to restore citizens' trust in politics, government, companies and each other. Drawing on evolutionary governance theory, which says that governance is poly-centric and path-dependent, and insights from innovation/transition studies about systemic change (which is mindful of the recursive elements in stability and change), we discussed mechanisms towards a Natural Social Contract and offered recommendations for transition policy.

The paper is motivated by our observation that the sustainability transitions in many countries are running into difficulties: the energy transition is slow due to the high costs of replacing fossil-based industry and households, the transition to sustainable agri-food system, meets great resistance from angry farmers (who feel unduly blamed for environmental problems), and the transition to a circular economy mainly consists of recycling. The sustainability transitions suffer from “consumer capitalism” (driven by financial capitalism) that allows cost shifting; inequality means that the weak will suffer rather than benefit from energy transition policy unless they are explicitly considered; network control favors regime players and social innovation is mainly seen as a means and not as a valuable goal. We argue that the challenges related to sustainability transitions and social transitions should be considered more in relation to each other and that each of these transitions should focus

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on social learning, co-creation and collective/connective action from a systemic perspective, with specific attention to multiple value creation, social and environmental stewardship, inclusivity and social justice, ultimately aimed at realizing broad welfare and prosperity for the benefit of ourselves, our planet and future generations.

Although a Natural Social Contract offers a narrative of change on collective issues, in the form of a plea for the synchronization and co-evolution of the sustainability transition and social transitions, it can clash with the urge in politics to emphasize differences for the sake of identity and power. Hence, overcoming this dichotomy requires parties in politics and society that can rise above their differences and place more emphasis on similarities and finding common ground, for example by exploring and highlighting shared values and looking for opportunities for multiple value creation. By doing so, the attention will shift to interdependence, mutual trust and shared responsibilities. This makes it easier for parties to arrive at a narrative of change on collective issues, one that brings people together. A common value base and the use of attractive imaginaries for innovation and development and the macro-concepts of a well-being economy and citizen capitalism offer opportunities to steer the system in the desired direction, through co-evolutionary steering, a form of steering which takes into account positive and negative interaction effects (through partnerships and less sectorial ways of thinking).

Mutual gains can be sought through agency but also through institutions for this. Various approaches that provide useful insights for this, such as shared value creation (Porter and Kramer 2002, 2019), integrated value creation (Visser and Kymal 2015), mutual gains approach (Susskind and Field 1996; Susskind and Cruikshank 2006; Rodríguez-Carvajal et al. 2010; Ryan and Wallace 2019), multiple value creation, and co-creation (Huntjens, 2021a). In the search for mutual gains, participants are encouraged to explore more ways to create more value (i.e. to increase the pie) and generate a broader vision on sharing benefits (Huntjens & de Man, 2017; Huntjens, 2021; Velter et al. 2020) in ways that contribute to institutional change. Attention to a Natural Social Contract helps to institute structural change through formal and informal institutions.

Attention to the systemic leverage points for a transformation towards a Natural Social Contract is necessary for inserting responsibility and integrated thinking in existing forms of governance. The transition to a just society in which sustainability, dignity, well-being, and prosperity is certainly not an easy and peaceful process (although its desirability is widely shared). But the persistence of problems will encourage regime players to become part of the solution, when external circumstances impel this (as is happening in the energy transition now and to a lesser extent in agriculture and the circularity of the economy).

Both the EU and US have programmes for green recovery which have transformative elements but which may restore the old economy if transformative change is actively supported. As such, COVID is not a 'game changer' but a crisis that, together with the political crisis (of citizens losing trust in government and the political system), can be used to restore confidence in politics, government, and companies.[12] In our view, there is an alternative to the neoliberal economy, which partly already exists, in the form of cooperatives, Teal companies, purpose-driven leadership and a greater orientation of investors towards social value creation. Another social contract is emerging and is being named and advocated as such (Huntjens, 2021, Shafik, 2021). The need for change is paramount. We need a more inclusive economy, with better pay and working conditions for workers, and access to health care services. Ecosystem protection and regeneration is needed for avoiding a resource crisis and for enhancing the well-being of those who live now. There is a big chance that the

[12] Thirty proposals for reducing inequality and fostering sustainability are provided by Ashford et al. (2020).

multi-trillion investment programmes for restoring the economy will simply restore the old economy. This is why attention to a Natural Social Contract is so important (next to the formulation of concrete policies and institutional reforms). Transition policy based on co- evolutionary governance can contribute to transformative change, via mechanisms identified in this paper, but such efforts meet with lots of problems, notably the power of incumbents and sectoral ways of thinking. The exploitative economy will continue to exist (within every conceivable time frame), but the grip it has on government, science, consumers and workers, the financial system is bound to decline, through the rise of an economy that caters to demands for responsible action and human thriving. The transformation of society into a market society (Polanyi, 2001; Sandel, 2012) was a long-term process, the same is true for making societies more fair, inclusive and less disruptive to nature and human beings. The task of achieving this cannot be postponed and is best taken up in a proactive, evolutionary manner to create transformative change in an experiential (time-honoured) way, by testing ideas of progress and alternative economies. Our ideas of co-evolutionary governance are based on the assumption that a Natural Social Contract is needed and that attention to interaction effects between different agendas for sustainability and those for reducing inequality and deepening democracy will lead to better outcomes through more reflexive forms of steering. This paper is partly a manifesto, in the form of a call for the creation of a Natural Social Contract and for transformation-oriented forms of governance, but the governance approaches advocated have been tried and tested, yielding insights for future use. We are not denying that every governance approach is subject to limitations (Mayntz, 1994; Peter and Pierre, 2004; van Asche et al. 2014), but the focus of this paper is on forms of governance that are concerned with dynamics and interaction effects through a broad scoped mutual gains approach. The systemic leverage points for transformation offered can be used for achieving change through questions about interdependencies which can be utilised by actor coalitions interested in transformative change through sustainability transitions which are not unduly sectoral but also pay attention to issues of just transition, resilience and the overarching goal of instituting a Natural Social Contract. Achieving this requires and involves a rebalancing of society and new imaginaries (as master signifiers), such as the well-being economy and a Natural Social Contract, as important new orientations.

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