Sustainable Development: Capabilities, Needs, and Well-Being

Only Chapter 8

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Transition towards sustainable development: Which tensions emerge? How do deal with them?

Ines Omann and Felix Rauschmayer1

Our current lifestyles are strongly determined by a quest for increasing welfare expressed through material consumption accompanied by environmental damage and impacts on the society[2]. On the societal level, increasing demand for household consumption require an increasing purchasing power; both factors are connected to increasing economic growth.

And, as mentioned in chapter 1 (Rauschmayer et al.), we are (globally and country wise) not following a sustainable[3] path; the negative effects substantially degrade the quality of life, sometimes below a threshold of a decent life quality (see for instance Jäger 2007; Worldwatch Institute 2010). In particular the crisis of 2008/9 showed us how unsustainable we are: economic crisis, still increasing greenhouse gas concentrations, peak oil and peak everything being closer than we thought, biodiversity loss, inequality between and within countries at new highs, life satisfaction stagnating or even declining (Nef 2009).

If we want to change the current path, which is the assumption underlying this book, then we have to revise the current trends of an ever increasing material consumption to meet our needs. This requires a change in consciousness and among others a change of lifestyles (cf. Hinterberger et al. 2009). 'Preventing the collapse of human civilization requires nothing less than a wholesale transformation of dominant cultural patterns. [...] This transformation would reject consumerism— the cultural orientation that leads people to find meaning, contentment, and acceptance through what they consume—as taboo and establish in its place a new cultural framework centred on sustainability.' (Worldwatch Institute 2010: 3).

In 'The Great Transition', the New Economics Foundation (Nef) explains why a business-as-usual path cannot be followed (Nef 2009: 3): Climate change and inequality will cost the UK trillions of pounds (in the period to 2050 the cumulative cost associated with climate change will range from £1.6 and £2.6 trillion, while the cost of addressing social problems related to inequality will reach £4.5 trillion, ibid.: 4).

How to support then a transition to sustainable development? Motivated by the wish to answer this question, we had written what is now chapter 1, even before we had the idea to produce the book you are holding in your hands. With the present chapter we complement this response, as

we close a first learning circle by incorporating what we have learned by reading the other chapters and through our work in the meantime.

The starting point of this chapter is the – probably contrafactual – assumption that there is a (political) agreement to aim for a transition towards SD. The aim of this chapter is not to check how valid these political statements are, but rather to look at innovative and promising ways on how to implement such transition. We look at this transition from a Western, respectively industrial countries' perspective. This means that our capabilities, or possibilities to change our life courses, are larger than those of inhabitants of poor countries (Boulanger, chapter 5)

A transition can be defined as a gradual, continuous process of structural change within a society or culture. Yet not every country follows the same demographic transition curve: there are large differences in the scale of change and the period over which it occurs. Nor is the transition process deterministic: it will adapt to, learn from and anticipate new situations. Transitions involve a range of possible development paths, whose direction, scale and speed government policy can influence, but never entirely control (Rotmans et al. 2001: 16).

Such a process can be described by various phases (see for the Dutch school of transition management: Loorbach and Rotmans 2006). In the light of this paper we want to see transition as a pathway and fundamental societal change (which can be gradual and smooth but accompanied by quick turns as well) that leads into a world that is definitely different from the existing paradigm (growth-related, as described above) to one with different values, culture and behaviour. According to Rotmans and colleagues, such a transition process would take about one generation (Rotmans et al. 2001).

The aims of this chapter are (1) to show tensions that might arise from pursuing a sustainable lifestyle because of needs or values conflicts; and (2) to follow the arguments of chapter 7 (Rauschmayer et al.) that a transition towards SD requires that actors start by looking into their inner side, reflecting upon one's values, feelings, world views and being open and prepared to develop. A motivation for the transition mentioned is given in the next section, based on the authors' personal values. Then we differentiate between three forms of tensions we see arising when pursuing sustainable lifestyles and include examples for them. In the last section before the outlook, one process to deal with those tensions is presented that includes inside and outside as well as collective and individual perspectives.

Motivation for a transition

Why do we want to transition towards sustainable development? This question is easy to answer as long as our current generation is concerned. Arguments can be: everybody wants health, a

clean environment, resources to produce and consume, and therefore a certain state of ecosystems. All mentally sane persons care for at least some other currently living human beings and for some of those members of the subsequent generation that we already know or even don't know (Howarth 2007). However, these arguments are not sufficient to justify a generalizable demand of or wish for a sustainable development in the long term. Why should one care for future generations beyond the generations of their children and grandchildren?

For many it is morally intuitive that it is a good thing to care for future generations. It is impossible, though, to derive a reason for this intuition from descriptive sciences alone – natural sciences give important answers in the questions on how to develop (or how not to develop), once the questions of values have been clarified. Mythical reasons to give the next generations what we have got from 'god' have been sufficient in former times, but are not sufficient for legitimizing public policy in democratic and secular states (see for instance Wilber 1997; 1981; Beck and Cowan 1996; McIntosh 2007). Some have tried to find a rational, universally acceptable reasoning for why everyone should care for future generations. Empirically, it seems difficult to grant moral value to people that live in a distant cultural world – and this difficulty increases with the perceived distance between the valuing and the valued person (Nida-Rümelin 1997). Even though the morally accepted distance between both has widened in human history (abolition of slavery, human rights, women's rights, …), most members of current societies are still far away from granting the same value to all currently living people (intragenerational equity) and still further away from granting the same value to members of future generations. As had been shown by Parfit (1983; 1990), it is far from easy to give good reasons why we should grant rights to people whose existence depends on our decisions (but see O'Neill, chapter 2, on this).

Another, a more personal way to answer the question why to adopt sustainable development is to explore the roots of individual behaviour, i.e. to look into the feelings and thinking, values, and needs inside oneself (figure 8.1), which means to inquire and become aware of them (i.e. into the mindset quadrant d of table 7.1: inside, individual; for more explanation see Rauschmayer et al., chapter 7). The following paragraphs show our own introspection and/or intersubjective dialogue (Buber 1995).

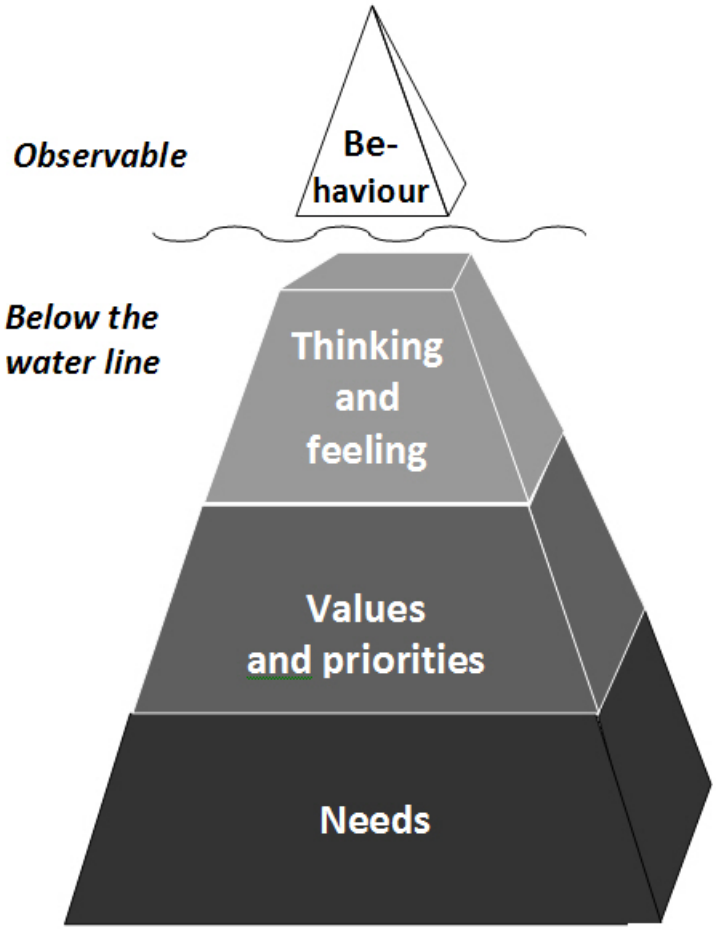

Figure 8.1: Roots of individual behaviour (adapted from Bellin 2010)

Our own motivation

Why do we – the authors - want a sustainable development, i.e. meeting the needs of the current and the future generations?

Ines Omann:

I have been raised in a typical middleclass household in the Austrian countryside, amidst a big family with four sisters and brothers and lots of cousins. This has coined me strongly and makes me value highly a family with strong internal relations. However, I faced situations in my family that were unfair in my eyes, either against me or against others (the ’behaviour‘-layer in the iceberg model, see figure 8.1 and Rauschmayer et al., chapter 7). These situations left me disappointed, sad and even angry (‘feelings‘); these feelings made me aware of the importance given to fairness and justice, first with regard to me, but then expanding the focus to others (‘values and priorities‘). Those others were first sisters and brothers, friends, schoolmates, but soon the whole world. Thus I would say the aim of pursuing justice is an important source of my engagement for a sustainable development. Needs that I value highly are freedom, affection, leisure, personal development and transcendence, as well as protection (of nature and of others).

I want to live a life that enables me to meet these needs, and I want everybody else to have the right to live according to their needs and values too. In Rauschmayer et al., chapter 1, where we present our framework, you can see that the flow of life is represented as a circle. This circle is ever ongoing, however, to my understanding and experience, not on the same level. This means that the strategies to meet a certain need change, my feelings that result are not the same during time, neither is the well-being I can experience. There I find meaning in my personal and in the more global human development. Engaging myself for the possibility of further human development on this earth beyond the next two or three generations contributes to my meaning of life.

This wish to move towards sustainable development made me choose my profession as well as edit this book and write this chapter, which deals with the tensions we all face when we decide to support a transition towards SD not only with our job decision but also and above all with the lifestyles we select.

Felix Rauschmayer:
When I see that our current socio-economic development (1) causes suffering as well as endangers and annihilates the life of many individuals of many species, (2) is not able to decrease (or at least not significantly) the number of those currently suffering, and (3) does not clearly increase the capability set of poor people and of future generations, I feel disappointed, helpless, angry, and frustrated. I highly value the idea of not causing unnecessary harm to any other living being, and the importance of this not causing harm increases with the ability to suffer. Even though I do not know how future people will be living, I am convinced that they will have the same needs as I have.

Being a rather well-off member of a rich society, I am not afraid for my own well-being due to our currently unsustainable development. I am even not afraid for my own children, despite global warming and all the biological and social processes that this will sharpen and cause. Caring for other sentient beings – alive or not – is a way of expressing my needs for protection and affection. I translate this caring into an engagement for sustainable development in the scientific and political realm as well as in my personal way of living. These are major domains for further strategies to realize these needs as well as my needs of identity, creation, participation, freedom and transcendence.

Comparison between the two authors

For both of us the primary motivation to edit this book and write this chapter firstly comes from our scientific engagement for SD. We see the current situation as not sustainable, which leads to feelings such as anger, sadness, and frustration. Needs are not met – some of ours and,

depending on whom we are talking about, some or nearly all of other living or unborn people. In addition, we see the danger that the future generations will not be able to meet their needs.

Felix Rauschmayer values the life of others and not harming them very highly; caring for others as well as engaging for SD (scientifically, politically and in his own lifestyle) are strategies to meet his needs for protection, affection, identity, creation, participation and freedom. Valuing justice and fairness highly motivates Ines Omann to engage for SD (scientifically and in her own lifestyle) and helps meeting the needs for freedom, affection, personal growth and transcendence, protection of nature and others.

Comparing our statements (which we wrote independently from each other), we see that the motivations are very close (nearly same needs, feelings). Differences lie mainly in the values, which arise from our culture and socialisation, where the latter has been quite different between us. We both investigated our mind-sets, i.e. our inside perspectives on us as individuals. This perspective is complementary to outside perspectives on individuals (behaviour) and collectives (systems) as well as inside perspectives on collectives (culture) (see table 8.1).

	Collective	Individual
Outside	**b. Systems**	**a. Behaviour**
Inside	**c. Culture**	**d. Mind-set**

Table 8.1: Four complementary perspectives on individuals (adapted from Wilber 1995)

As you may have seen in our small statements above, starting with reflecting on the inside means to start with (1) becoming aware of, and (2) questioning and changing own values and preferences – this eventually leads to changing existing lifestyles. Lifestyles also change, of course, due to external changes, particularly if these are rather culture-related than mere systemic changes in the natural or institutional environment. As most attention has been given to systemic changes, less to cultural and very little to intra-individual processes, we argue that acknowledging and integrating this last perspective into sustainability science and politics can lead to more durable achievements in transition processes.

But 'inside' changes cannot be imposed, but only influenced from the government or the ruling class – German 20th century history gives examples for this[4]. Weaver and Jordan (2008) argue that supportive constituencies are needed for policy makers to be able to take the risk of starting fundamental changes. This citizens' support can only arise out of certain values, feelings and beliefs (quadrant d), or, as Robinson et al. (2006) call it, from new approaches for engaging different groups in public policy making in sustainability issues.

Coming back to the main theme of this chapter, the tensions we face when pursuing a transition towards SD, we shortly explain here what we mean by tensions, before elaborating on them in the next section. The lifestyle a person chooses is reflected in the selected strategies to meet one's needs. Everybody has already experienced value conflicts when taking a decision in the form of a dilemma or a tension. Sustainable development can be seen as a value (Rauschmayer et al., chapter 1) or as a set of values. No matter how we see it, a lifestyle according to these values will most probably lead to conflicts and tensions. By choosing a certain strategy we can meet one need and harm another for instance (cf. Cruz, chapter 6, on the different categories of satisfiers). E.g., the strategy of using public transport instead of a private car protects subsistence and allows participating in a certain social group as well as creating a new lifestyle; at the same time, it could inhibit to feel free and endangers one's identity. We differentiate between three forms of tensions which will be explained in the following section, based on our framework (see figure 8.2) and on conflict theory.

Tensions emerging in sustainable lifestyles

As stated in chapter 1, 'the aim of SD is to increase the quality of life for current and future generations, i.e. to generate increasing well-being and more capability space for current and future generations, at least above a certain level' (Rauschmayer et al., chapter 1). This can only be achieved through a globally diminishing consumption of natural resources (the degree of the reduction being much higher in the industrialized countries). In current politics, we see policies aiming at improving the efficiency without really questioning behaviour (such as factor 4, 5, or 10, Weizsäcker et al. 1995; Weizsäcker 2009; Schmidt-Bleek 1993) or at changing behaviour without addressing values and needs. Increasing efficiency aims at avoiding conflicts related to values and deeply rooted practices. Policies based on this concept, though, have achieved a reduction in nature consumption in very few cases only; they rather lead, e.g. through the rebound effect, in a continued increase in nature consumption (Binswanger 2001). Efficiency increase therefore has mostly been used for an ever passing increase in hedonic well-being (cp. fig. 8.2) of the powerful (future generations having the least power), but has not really contributed to an increase in their overall quality of life (cp. Rauschmayer et al., chapter 1). Therefore, as in capitalism, we have to face conflicts between powerful and contemporary

powerless people. Taking this analogy further: might then the moral concept of SD take the role that the standards of the International Labour Organization (ILO) has in labour-related conflicts, i.e. aiming at guaranteeing minimal rights of the powerless? We all know about the difficulties of enforcing the ILO-standards, but the situation is even worse for SD: it is not clear who harmed whom, the currently poor have very little possibilities to make them heard, SD does not state rights on an individual level, and members of future generations are not existent at the time when the actions are done that will do them harm (if these people ever exist, cf. Parfit 1983). Meta-strategies such as efficiency give the impression that conflicts around SD can be avoided; instead of this, we are now looking for ways how to deal with them.

Rijsberman (1999) distinguished the following sources for environmental conflicts: data and facts, values, relations and interests. All three sources are present in conflicts related to SD, but the value dimension is particularly strong. As said in chapter 1, values give importance to specific needs and strategies, and values differ between the individuals. One can therefore understand conflicts as conflicts between values given to different needs and strategies. To reach a shared understanding of values, though, may be more difficult than trying to agree on strategies to meet needs, as it implies to open oneself up which requires a climate of trust procuring security (see Cruz, chapter 6).

By applying the needs-based concept for SD (Rauschmayer et al., chapter 1) we notice that all actors are confronted with the same problem: to find strategies that help meeting some of their needs without compromising the same or other needs at the same time. This means that all people aim at a better understanding of those factors which enlarge and restrict their capability spaces, i.e. of the relationships between the strategies on the different levels and the needs involved. A better understanding of these factors would also contribute to find proxies for the participation of future generations in our decision processes. The general idea following from our approach is to keep the capability space as open as possible, by leaving or increasing resources and agency for future generations. Here we come again to the problem SD poses to democracy, already addressed in chapters 1 (Rauschmayer et al.) and 3 (Leßmann): When looking at voting behaviour, at least the majority of voters in current democracies have to value SD more than just paying lip-service to it. Only a wide-spread anchoring of SD legitimates and enables politicians to pursue SD strategies that limit current access to and use of natural resources. And, of course, also the politicians must feel deeply connected to sustainable development. Using the motivational power of adopting lifestyles of SD role models may be an important step towards meeting these democratic conditions of a societal transition towards SD.

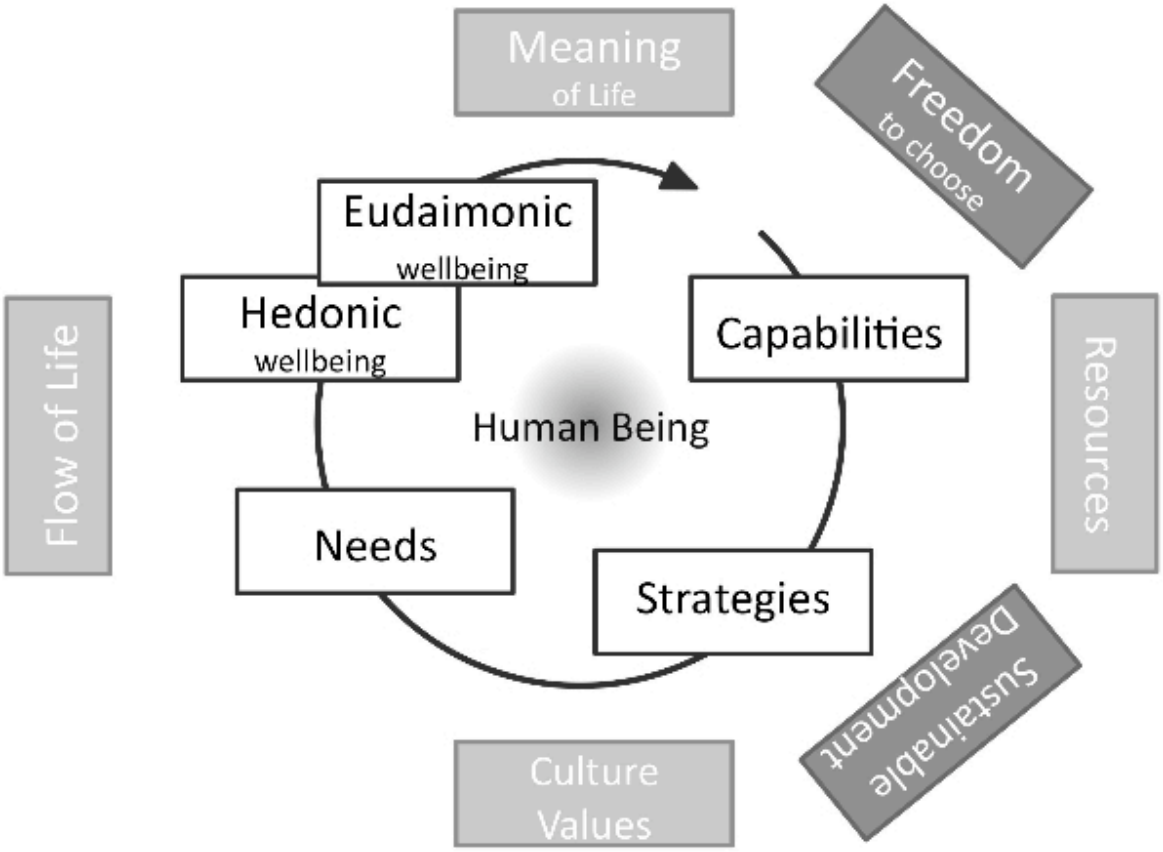

Figure 8.2: The circle of quality of life (source: Rauschmayer et al., chapter 1)

The framework presented in chapter one (figure 8.2) is individualistic in the sense that it assumes that individuals can alter their quality of life by individual decisions, herewith selecting specific strategies from their capability set in order to better meet their needs which impacts on their well-being. We assume that these decisions are difficult decisions in the sense that tensions arise – within the individual and between individuals. Intra-individual tensions are due to several factors such as: ignorance and uncertainty with regard to values, capabilities, strategies, needs, well-being, and their respective relationships; values that lead to incompatible prescriptions; behaviour driven by habits. Intra-societal tensions are due to competitive use of resources, differences in values leading to different prescriptions with regard to strategies (and also due to envy with regard to differences in well-being). We now take a closer look at tensions that arise due to a mutually exclusive use of natural capital as we judge this the crucial point with regard to the intergenerational aspect of sustainable development, being also of some importance for intragenerational justice.

Taking up the image of the iceberg (figure 8.1): In a conflict we see clashing behaviour above the waterline, and we can interpret this as strategies clashing with each other. People have different strategies as they have different understandings of facts and/or different values and

priorities. On an individual level, going down to the needs layer allows each individual to perceive that there are more strategies available than just the one chosen; one recognizes that other strategies might better meet one's own as well as the needs of the others. This recognition may help to induce a dynamics that resolves conflicts which are on the level of strategies.

On a societal level, thinking and feeling as well as values differ between different actors. Therefore, it is not astonishing that different actors interpret SD differently according to their belief about the importance of specific needs and about the validity of specific relationships between strategies and needs. Commonly, interpretations of economic actors focus more on their need for freedom whereas environmental CSOs interpret SD more with regard to protection. At the same time, the economic liberal strategies, which many economists believe to strengthen freedom, are, according to many CSOs, rather reducing freedom. Complementing these rather contrasting layers of human conflicts, the concept of abstract and common needs gives some resort for reconciliation. Noting that at the bottom, the two, apparently incompatible icebergs of two 'conflict partners' are constituted by the same layer eases the tensions. This basic layer can also constitute the basis for addressing conflicts with regard to future generations whose values and priorities, thinking and feeling, and, therefore, whose strategies are unknown to us. The conflicts have a fictitious part insofar as the future generations do not yet exist and, in consequence, they are not bearer of interests, values, or needs. But as we or self-acclaimed representatives of future generations have value claims relating to our internal representations of future generations, these conflicts become real internal or external conflicts.

In order to get a clearer picture of these conflicts, we now differentiate between intra-individual, intra-societal and intergenerational conflicts. This categorisation parallels the moral development sketched above: a growing cultural distance between the valuing and the valued person.

1. Intra-individual tension: a given strategy or set of strategies, that is prescribed or recommended by SD, can be in conflict with other values. The sustainable strategies help or inhibit the individual to realize certain needs and no synergetic strategy is found (cf. Cruz, chapter 6).

2. Intra-societal tension: The needs of any individual or societal group wanting to pursue sustainable strategies in our societies are affected by needs of other individuals or groups or affect needs of other individuals or groups, who might choose unsustainable strategies. This tension points to the interdependency of individual behaviour with societal culture and the systemic embedding of behaviour.

3. Intergenerational tension: This tension arises if certain societal strategies support caring for next generations, but inhibit current needs and vice versa.

The differentiation between the three tensions is somewhat artificial, as they are all inter-linked. The intergenerational tension, for example, becomes manifest only through intra-individual tensions when the individual has a moral concern with regard to future generations, or through intra-societal tensions when there is a group of people voicing this concern in society. The examples will show the difficulties of this differentiation. Addressing these tensions in the vocabulary of needs is a first step when trying to overcome mere avoidance of conflicts or mere seeking for compromise between interests.

Examples for tensions

1) Intra-individual tension

An Austrian journalist has started an experiment in the beginning of 2010[5]. He is fastening CO_2 during this year with the aim to reduce his CO_2 emissions by three quarters. In his blog (Brandner 2010) he describes the change of lifestyle he is undertaking, his activities as well as the concerns and doubts that he is facing throughout this experiment. His blog has stimulated much attention and many reactions. In an interview with one of the authors in March 2010, he talked about his current intra-individual tensions due to his experiment (Brandner 2010).

His biggest cut was to give up his car and not to buy a new one, although he had been wishing such for a long time. He dreamt of buying a certain model of BMW. He even went some time ago with his son to the BMW museum and exhibition hall in Munich to see the car and to a make a test drive and: he was fascinated. Possessing and driving such a car would be a strategy to meet his needs for leisure, creation and also protection of nature.

- Leisure: because of the fun and the good feeling he was experiencing when driving it, the smooth movements of the car, the ‘perfect’ silhouette.

- Creation: He calls himself a technology freak; he knows a lot about cars and their technical details. This certain model allows him to live his technical creativity, to be part of this innovative technology and to play with it.

- Protection: The car uses only 4.5 litres of gasoline per 100 km with 120 PS. This means that it is very energy efficient, which would fulfil partly his need to care for nature. But he also knows that cars using 4.5 litres cannot be a general mobility strategy on a global level.

Instead of buying this car, he chose to mainly use his bike, public transport and his feet as strategies for his private mobility in 2010. He admitted that it had been a hard decision accompanied by inner conflicts. What he did was to reflect upon his values, needs and possible strategies (entering his mindset, table 8.1). That way he was able to take a decision which was at first glance not leading to well-being. However, his feelings have changed due to changed values and due to changed experiences. He now is aware that his decision allowed him to meet needs which are currently more important to him than those met by owning the BMW. The relevant needs are leisure and protection of nature (which would have also been partly met by having the car) and, in addition, affection and subsistence.

- Leisure: by avoiding useless or unimportant car rides he saves time, which he can use for himself, for his family, to relax. By this strategy, he is decelerating his whole life.

- Protection of the environment: Neither having nor using a car saves lots of energy and resources and contributes strongly to his CO_2 reduction (his need for protection is better met by this current strategy than by having a car).

- Subsistence: his physical health has already improved through cycling to work every day; he is investing the saved money in (regional, organic) food, house insulation, fair trade products.

- Affection: Avoiding car-rides gave him more time with his family which improved their relationships.

His conclusion is that seeing his decision in the light of what he lost and won, he can definitely say that his quality of life has increased through a different lifestyle with regard to his personal mobility. So, he could nearly completely dissolve his tensions.

2) Intra-societal tension

Continuing with examples in the same field, there are tensions between those people who wish to use CO_2-poor mobility strategies and the general organization of public and working life which is focalized on the use of cars and airplanes, on high personal mobility and a globalized economy making it often very difficult to buy local or regional commodities, as many of them are produced with global inputs or by global players (cf. for the issue of ‘glocalisation’ to Swyngedouw 1997). Additionally, culture, as the expression of socially shared values, puts moral pressure on those who decide not to pursue those strategies which are socially valued.

An example for the cultural pressure is the question on how to bring children to school. The culturally dominating style is the 'taxi-service' given by parents to their kids in order to bring them safely to school or other places, herewith increasing not only CO_2-emissions, but also all other traffic-induced nuisances, such as noise, danger, dust etc. One of the authors decided to use a bike trailer for transporting his children to the kindergarten, even though a car was available. The judgement of other parents was 'irresponsibility' as they judged this mode of transport too dangerous (accident, exhaust fumes).[6] Their (supposed) expression of their need for protection clashed with the expression of the author who valued not only the needs of his kids, but also those of other born and unborn sentient beings.

There are different elements available for resolving this kind of tensions: changes in structure (quadrant c in table 8.1), such as better cycle lanes, in culture (quadrant b), such as a higher social value on environmentally friendly behaviour, and in mindset (quadrant d), such as more coherence between one's own needs, values, as well as thinking and feeling. Changes in these elements may facilitate changes in individual behaviour (quadrant a) and herewith ease the tensions.

Changes in culture require a dialogue that goes beyond confronting the strategies. Each layer (of the iceberg, figure 8.1) descended gives a greater chance of reconciliation. Some tensions are eased by referring to feelings and rational arguments, others only once the respective values are understood. Referring to common needs requires a high degree of revealing oneself, and herewith inner strength or trust in the partner of the dialogue, and – at the same time – offers another possibility for reconciliation (see also the next section on dealing with tensions).

3) Intergenerational tension:

Restricting the impact on climate change is one of the currently most prominent strategies for intergenerational justice and, herewith, for protection. Even though we do not know who will live, how these persons will live, what values they will have and what strategies they will favour for meeting their needs, it is plainly obvious that climate change will not contribute to increase the capability set of future generations at large. Adopting this strategy, one of the authors therefore decided to restrict own travel for professional and private reasons. At the same time, this author wants to learn, contribute, and gain professional security (all three judged to be increased by frequent travel to conferences), as well as maintain a link to a family member living in another continent, herewith aiming to realize the need for affection.

There are some societal groups arguing for a restriction of air traffic, usually through economic disincentives, or, put differently, through the abolishment of fiscal advantages, or through voluntary payments offsetting CO_2-emissions. But these groups do not have much societal

impact for the moment, i.e. flying is a culturally widely accepted behaviour. Therefore this intergenerational conflict mostly takes place intra-individually. Tired of the many intra-individual decisions with regard to the mode of transport for longer distances (plane or train), the mentioned author decided to adopt the double rule, (1) to use airplanes only for journeys that take more than 24 hours by train, and (2) to be very restrictive with regard to intercontinental journeys, be it for professional or private reasons. This rule has created tensions with the family member abroad, and is restricting his professional opportunities. Research is increasingly organized on a global level, and limiting oneself to a geographical area is often met with incomprehension. There are requests for personal or professional exchange (motivated by affection and/or learning) that cannot be met due to travel limitations.

There are different leverage points for a transition towards a more intergenerationally just behaviour: mindset, culture, and system. As discussed above, a system's change in democratic societies require a value shift in a large part, if not the majority of the society. Values are anchored in communities and individuals, and cannot be changed by order, but only through manipulation or autonomous change. As with the last category of tensions, the latter requires again a 'deep' dialogue or monologue.

Particularly in this last tension, but also in the second one (the intra-societal tension), intra-individual tensions are very present. The overall presence is evidently a product of internal value conflicts where the value of SD does conflict with other values (or, more precisely: where strategies prescribed by SD conflict with other values or vice versa). We consider SD as a value, as it confers specific importance to specific needs and strategies (cf. Rauschmayer et al., chapter 1). Therefore, it has a strong prescriptive force for those people who adopt SD. Of course, SD is not the only value an individual adopts. In consequence, actions towards SD may infringe prescriptions stemming from other values. Intra-individual tensions are small where SD prescriptions can easily be accepted or where prescriptions stemming from other values are neutral to SD, e.g., the recycling of bottles when the necessary environment in form of glass recycling facilities has been created. Intra-individual tensions can be large, e.g. in the case of human population management where the individual rights to sexuality, family, and autonomy clash with the requirement to reduce human population on earth, as it is not possible to imagine a high-quality life for even more than the current population size on a long term perspective. Intra-societal tensions often reflect in intra-individual tensions as well, when claims from other people are acknowledged and perceived as legitimate.

The moral challenge of intergenerational justice, inherent in SD, often conflicts with traditional or narrowly self-regarding values: e.g., traditional cultural norms advise us to care for our current family rather than for future generations. There is an additional issue with intergenerational

tensions, as briefly mentioned above: whereas the contemporary bearers of moral claims can make themselves heard, the bearers of moral claims in issues of intergenerational justice are not present. In societal terms their claim only exists because of some individuals who adopt them and make them heard. With other words, this intergenerational claim necessarily has an inside component that cannot be explained by an outside perspective alone.

Dealing with the tensions – a suggestion

The last section described reasons for tensions coming from beliefs and value conflicts. Dealing with tensions requires going beyond the tensions to the beliefs and values lying underneath and addressing them. We see a four-step process as an option to deal with the tensions[7]:

1. Recognizing the tension(s)

2. Reflecting upon the iceberg underneath the tensions (values and priorities, needs)

3. Communicating the reflection results to the persons affected from the tension, if possible

4. Starting a process of creativity to find ways of dealing or even overcome the tension(s)

Ad 1) Tensions might initially be recognized by an uneasy feeling when choosing a strategy and/or when applying a strategy. Such tensions might as well be identified on a cognitive level by sharing this uneasy feeling with people standing close to one or with those having chosen the same or a similar strategy. Another possibility to recognize a tension in one's individual or societal behaviour might be by being opposed in one's strategy by other people, be it through personal confrontation, or through confrontation to ideas laid down in media or even laws. This first recognition therefore already involves the first underwater layer of the iceberg: thinking and feeling.

From the outside, it is not straightforward how to strengthen the ability to recognize tensions. Most likely this can be facilitated by close persons (parents make their kids aware of possible tensions; among friends) or professionals (coaches, therapists). Authorities can support the awareness by informing the citizens via media or in education programs about possible tensions between their strategies and those supporting SD.

Becoming aware of the tension between, e.g., car 'taxi services' for children and the need for a safer environment, can thus be the first step, mediated by friends, media, or public administration. Recognizing the tensions means to look at strategies that I selected to meet my needs and to realize that there are conflicts between these strategies and SD. The recognition,

hence, leads to an initial reduction of well-being (conflicts usually have a component that impacts negatively on the need for affection).

Ad 2) The next step would be to look underneath the tension that has been recognized emotionally and/or cognitively. What triggers the tension? It might be a mixture of needs and values, belief systems and convictions as well as habits. It is possible that the tension starts to dissolve, just by reassuring oneself that the behaviour is in line with one's convictions, values, and needs, or by shifting the behaviour in order to achieve coherence, or by shifting one's values, beliefs, etc. As in the first step, no law or regulation can support this inner reflection of individuals. Again, close persons, media, education, and professionals for personal development can support this step. If the addressed tension emerges within decision makers who choose strategies on the societal level, then the reflection has to include not only the inside of the decision maker but also the needs, values and belief systems of the persons he or she is representing. That way, mutual understanding can be created which is conducive to acceptance for the decisions from all sides.

This step is of course linked to the whole iceberg below the waterline, as it requires 'diving' exactly down there. And in concordance with the iceberg below the waterline this step addresses the often forgotten inside of the individual.

Let us look at our framework (figure 8.2): In the first step we addressed mainly the strategies and noticed the reduction of well-being that might emerge due to tensions with pursuing SD. Here we look deeper into our needs and where they come from: culture, values, thinking and beliefs (the box called values and culture). They influence our needs (which needs do I want to meet now and foremost) and the strategies I eventually choose. Thus, if I want to reduce the conflicts that accompany my behaviour, I can influence and reconsider the culture I live in and values and maybe change them or decide to change my behaviour. Being able to do so reflects my own autonomy, potentially increases the coherence of what I am and what I do, and herewith raises my well-being. This well-being is connected to meaning of life, as my behavioural change emerges from autonomy and other values. Thus we talk about eudaimonic well-being (Spillemaeckers et al., chapter 4). Alternatively, I can also accept the tensions as they are, if I do not want to change, neither the behaviour nor the areas below the waterline; sometimes, self-inquiry or meditation make such tensions vanish.

Ad 3) This is the time when the person who has recognized the tension, reflected on it and its reasons, goes outside and talks to whomever the tension and related strategies might concern – if this person exists (not possible with future generations – here intra-individual or intra-societal communication has to replace this, see below). The decision maker talks to the affected groups,

the individual to other individuals or groups. In the case of an intra-individual conflict, the communication can consist of becoming aware of the reflection results or talking with a close person about them. It is important to get into resonance with the person(s) vis-à-vis and to respond to them in their language. Forms of dialogue which can support this step are, e.g., public discourse (Dryzek 1996), social learning (Tabara and Pahl-Wostl 2007; Siebenhüner 2005; Social Learning Group 2001), or intersubjective dialogues (Buber 1995).

In particular, if this tension emerges between groups, the government can support this step by according their employees (decision makers as well as those that help preparing the decision) a special education including social competences, the above mentioned methods and moderation skills. This education is of strong importance also to facilitators in sustainability research (Rauschmayer et al., chapter 7).

If the conflict is intergenerational, then a discourse with the affected people can not be done. For any simulation of an intergenerational dialogue it is important to reach a shared understanding of the elements that future generations will require for a decent or high quality of life: needs, strategies, capabilities and our influence on them through resource use, cultural change, economic development paths, etc. Adopting SD, we all agree that future generations will have needs for subsistence that will require a certain state and management of ecosystems, and that any paths that inhibit this kind of capabilities is unfair to them. In a multi-criteria analysis, e.g., (Omann 2004) the value given to the quality of life of future generations can be reflected through the weight of one of the criteria and the uncertainty regarding the impacts of current decisions on the quality of life can be captured by methods such as multi-criteria mapping (Stirling 2001).

This third step addresses all parts of the framework that are taken up by steps 1 and 2 as it opens up those steps to the outside. We therefore have the link to the strategies, SD, and well-being, as well as the link to needs, culture, and values.

Ad 4)

´Through the acts of recognizing the tensions, reflecting upon and communicating about them, clarity can arise that there is not only one strategy to fulfil a need, but ‘thousands’ of them. Due to habits and not reflecting, only one (or few) of them is usually chosen and declared as the beloved one. The first three steps allow us to leave our single-mindedness and see other strategies (i.e. increase our capability-set through awareness-raising) and – which is important for a change of habits – see the drawbacks of our preferred strategy as well as the advantages of other strategies. Maybe they lead to more well-being, maybe they require less effort and through them, we may even realize other needs simultaneously, being less in conflict with other needs and values that are related to SD. Seeing other strategies AND experiencing them is a process of

creativity (by the way, this allows without extra effort meeting the need for creation). This creation process can evolve on the individual level or within communities/groups. Governance actors can even initiate such a process through setting stimulating frame conditions (organize participatory events, for instance a wisdom council[8]). Facilitators, who work in the light of quadrant d (cf. Rauschmayer et al., chapter 7) can support these events and elicit innovative strategies from the participants. Ideally the event is part of a longer (research) process, which includes experimenting with new strategies in a protected frame, herewith including the emergence of a new culture, even though in laboratory conditions. Protection means here that the consequences cannot become too negative (i.e. expensive, harming the health, reducing social capital). The experience (with all senses) of new strategies allows the actor a holistic judgement about the impacts of these strategies, whether they meet the needs as hoped for and reduce existing tensions. It also allows a better idea of political changes needed in order to facilitate the take-up of these strategies in real life and by more people than just the participants of the process.

The fourth step would result in a behavioural change (top level of the Iceberg Model and mindset), ideally assisted through political changes and clarity about resulting changes through the implementation of this strategy (systems). This change results from changed values, beliefs and culture through a better individual and shared awareness of needs. That way chances increase that the transition is persistent. Thus, this step links to capabilities, strategies, resources and well-being in a direct way and to SD indirectly.

Conclusion and Outlook

Compared to chapter 1 (Rauschmayer et al.), this chapter is moving out of the outside view on the individual that explains how individual decisions are made and how they relate to sustainable development and quality of life. The first chapter did not really touch upon intra-individual or collective processes. In the chapter at hand, intra-individual processes were illustrated by the our (authors') motivations that show that our work is related to our understanding of meaning of life. This chapter took up the main issues of the framework proposed in chapter 1 (figure 8.2), but put them in an enlarged context, mainly drawing on the inside perspectives; the link to the collective perspective has only been sketched. Understanding how one is contributing to something larger than one's own hedonic well-being (this wider perspective is called 'agency' by Sen, see Leßmann, chapter 3, or 'eudaimonic well-being' in psychological literature, see Spillemaeckers et al., chapter 4) is related to meaning and renders the flow of life possible, i.e. the spiralling of figure 8.2. Relating the individual to the collective perspective was not only done through describing the motivation, but also by distinguishing three different tensions (intra-individual, intra-societal and intergenerational); examples were given. The interweavement of these tensions

re-enforced the conviction that sustainability research and practice has to better include intra-individual perspectives when aiming for sustainable development.

Needs-based policy processes (O'Neill, chapter 2, where he opts for a needs-based approach in sustainability) provide a means of addressing SD in a more encompassing way than processes that structure knowledge according to substitutability or a segregation into three or more dimensions; they thus offer a promising approach for realizing SD as a set of values.

Taking into account the whole framework (figure 8.2) and what has been said right above, there is not one perfect leverage point for starting a transition, but different ones which can be seen as a set. It consists of increasing the capability space including the freedom to choose, of stimulating creativity to find other strategies to meet the needs (if the common strategies are unsustainable, i.e. do not permit all living and not yet living persons to meet their needs decently) and of setting the framework that citizens, facilitators and decision makers are motivated to look below the top iceberg level (figure 8.1) and the individual inside level, i.e. to needs, values, beliefs and emotions. That way the pursuit of SD can be combined with high quality of life. Needs fulfilment leads to higher well-being, which is a constitutive part of quality of life (see Spillemaeckers et al., chapter 4).[9]

SD policies can and should support low material or immaterial strategies to meet the needs and make material intense strategies less appealing or even forbid them. As, apparently, increase in income which is linked to increased material use does not increase the perceived quality of life for most inhabitants of rich countries (see for instance Layard 2005; Jackson 2009). Policies focusing on more effective strategies to increase quality of life would also increase SD by freeing resources for poor people. Furthermore, there is the high risk that without restrictions on material use, more and more people will not have the resources necessary for realizing their needs.

But a high quality of life is not per se compatible with SD, as shown above in this chapter when we described the tensions. We have shown a four-step process to deal with these tensions. And we have named a couple of possible leverage points for environmental governance. Bringing the four-step process and the leverage points together means to start each intervention by reflecting about possible tensions that could arise, looking to their reasons below the waterline, hence to address emotions, values, beliefs and – very important – the needs that people aim to meet.

Methods that could be used for such processes include, for example, needs-based multi-criteria analysis (Cruz 2009 et al.; Rauschmayer 2005), participatory scenario workshops, wisdom councils (Rough 2002), systemic constellations (Sparrer 2007), dialogue, sociocratic moderation

and other types of process work (Mindell 1995). What these have in common is a commitment on the part of SD scholars as process managers to explicitly incorporate (the expression of) emotions and values.

We do not assume that the four-step process and the suggested methods can be immediately used on a large scale. First, methods have to be tested and adapted to the context (e.g. governance level, economic or cultural development, issue at hand), and the organisational conditions to be established (e.g. trained facilitators).Second, we do not assume that the majority of the world's inhabitants are yet open and prepared for such processes. However, transition starts with processes and actors in niches (Loorbach and Rotmans 2006). We believe that there is a substantial amount of such niche actors either already reflecting on their live and work in an integrative manner or open to start such processes – if supported through governance. Much has to be better understood and, foremost, to be done in order to support such a shift towards SD. We see main challenges in the practical implementation of our suggestion, seen the climate of mistrust, competition and impression of scarcity (and herewith of fear) in society at large and in polity in particular. Therefore we cannot yet show that this process can be translated onto a generic level. This is one of the big future challenges we want to address in our work.

We are sceptical as to whether our attempts to move towards SD are sufficient; at the same time, engaging ourselves in this attempt is – as we see it – a better strategy to meet our needs than to resign, to become cynical or to go into hedonic well-being only.

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[1] We are grateful to comments from Tom Bauler, Johannes Frühmann, and Lisa Bohunovsky on earlier versions of this text.

[2] We use too many of our resources, which is shown by the 'overshooting day' or 'ecological debt day', as it is also called, which comes earlier every year or by the ecological footprint, which is on average above the sustainable threshold and way above for industrialized countries; for instance the average footprint of an Austrian citizen is 4.9 ha; the sustainable figure would be 1.8 ha per capita (cf. WWF 2006).

[3] We follow here the Brundtland definition of sustainable development, which says that a development is sustainable if it allows current and future generations to meet their needs.

[4] The German socialist regime apparently has not produced a shift towards more socialist values (Arzheimer 2005); it is our impression that the fascist regime was more successful here, as it succeeded better to adopt existing and create new encompassing cultural movements, herewith inducing a shift in the inside collective perspective.

[5] A similar project exists in Belgium since 2008: http://lowimpactman.wordpress.com

[6] This judgement also had an intra-individual dimension, as the author also wanted to meet his need for protection by offering a safe mode of transport for his kids.

[7] We are aware that it is not possible to impose such a process for all conflicts and tensions arising in decision making in the light of SD. It requires certain preparedness, openness and experiences of actors. In this chapter we can only state our ideas but not give solutions how to bring them into practice. But we hope that – based on experiences we win from current and future research projects – we can give more insight on the practical implementation of our ideas.

[8] The Wisdom Council Process is a new way to transform the collective decision-making process of large systems. It facilitates the people to become more informed, competent, creative and collaborative and to come together in one whole-system conversation where the most important issues are resolved. The point of the Wisdom Council process is to generate a creative, system-wide conversation that reaches specific conclusions, the will to implement them, and builds the spirit of community. The goal is to have everyone talking in a thoughtful, creative, heartfelt way about the big issues and to cooperate for consensus views to emerge (from http://www.wisedemocracy.org/breakthrough/WisdomCouncil.html and http://www.tobe.net/wisdom_council/wc.html: 3.4.2010); cf. Rough, 2002.

[9] The overall objective of SD is to secure and increase the resources and capabilities necessary for increasing the quality of life for all people as a precondition for needs fulfillment and for individual well-being (European Commission, EU SDS 2007). We do not see QOL as a precondition for needs fulfillment and well-being, but as a resultant of sufficient capabilities leading through needs fulfillment to a high well-being.