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Resilience, Transition, and Creative Adaptability

‘That the way down can be prosperous is the exciting viewpoint whose time has come. Descent is a new frontier to approach with zeal.’

Odum and Odum, 2001: 4

INTRODUCTION

In this chapter we continue the analysis of vulnerability outlined in the previous chapter, but focus on ways to respond and ‘cope with’ vulnerability. I begin my analysis by noting that the appropriate response to vulnerability is not invulnerability, which would be impossible, and indeed undesirable. *Impossible* because given the types of creatures humans are, living in the types of environments and contexts (natural, human made and hybrid) they live in, it is inconceivable to think of any human being invulnerable to the contingencies and vicissitudes of life as a human on this planet. It is *undesirable* to attempt invulnerability, following on from some of the points made in the previous chapter, given the centrality of vulnerability to what it means to be human. That is an invulnerable human would not be human at all, but a supernatural being or God. It is also normatively undesirable for the reason that seeking to sequester vulnerabilities and dependencies, as the last chapter demonstrated, is never effective and leads to potentially false and unhealthy attitudes to death and illness, and conceptions of human flourishing.

So what then is the appropriate response to vulnerability? I canvass one possible candidate in this chapter, namely resilience. An orientating question for this chapter is the following: what does resilience look like in the face of the multiple levels and types of vulnerability outlined in the previous chapter and the various crises outlined by green politics? Another reason for focusing on resilience is that its salience and popularity have increased over the last number of years—sometimes as a replacement for ‘sustainability’, sometimes

as a particular understanding of sustainability (Adger, 2003). Its prominence in both academic and policy literature—especially, but not exclusively in relation to adaptation to climate change (and peak oil/energy security concerns)—is striking. At the same time, the concept of resilience and adaptation can be found to figure prominently in a grassroots movement which has grown rapidly in the last number of years. This is the Transition Towns' movement (or Transition movement) which has recently emerged in the UK, Ireland and elsewhere (Hopkins, 2008a, 2010; Barry and Quilley 2009; Barry 2010). Academic, policy, and Transition movement approaches to resilience all explore 'adaptability', and this chapter will seek to integrate the three sources (though with an emphasis on the theory and practice of the Transition movement) in outlining the dimensions of 'complex adaptive management'. This analysis of resilience and adaptation also anticipates and builds some of the arguments which follow in the chapters on green political economy (chapters 4, 5, and 6) and green republicanism (chapters 7 and 8).

In this chapter I offer a somewhat uncritical account of Transition and this must be explained and defended. While like many other green thinkers and activists I see much promise in this new initiative, I do not think it is a panacea for addressing actually existing unsustainability. However, nor do the main proponents of the Transition movement perspective. There is a large gap between what transition ideally is about and what people write about Transition movement, and what happens on the ground, as I know only too well as a member of this movement. I have offered a more critical analysis of it elsewhere (Barry and Quilley, 2009). There is also a growing literature critically analysing the movement's ideas, strategies, and practices and I would direct the reader there for a less uncritical account (Cato and Hillier, 2010; North, 2010; Read, 2008; Chatterton and Cutler, 2008). In other words, I am here not offering either a sociological analysis of the Transition movement, nor making a contribution to debates critically analysing it.

Rather, for the purposes of this chapter and the larger argument I make in the book, I am primarily interested in the ideas and theory behind Transition. In a way which will be (rightly perhaps) criticized by others, I am viewing the Transition movement as a form of 'prefigurative green politics', a form of green political theorizing which draws on ideas from outside its usual 'normative hinterland'. Here, as will be seen in the chapter, I am particularly interested in the movement's integration of the insights of permaculture, peak oil, and concepts such as 'resilience' and complex adaptive management into its analysis and prescription. In particular, concepts such as 'slack', 'in-built redundancy' and how the Transition movement foregrounds creativity (that goes beyond mere intellectual approaches to creativity and includes emotional and affective responses) are also of interest to me and indicate, as I suggest, important avenues for green political theory to explore. I also highlight and analyse the cultural and psychological dimensions of the

Transition movement's analysis and its reaffirmation of the importance of a localist, place-specificity as both a core element of a less unsustainable community, and a major aspect of any transition away from actually existing unsustainability.

RESILIENCE, PERMACULTURE, AND SUSTAINABILITY

The concept of resilience can find its roots in a number of bodies of knowledge. In engineering it denotes the ability of a substance or entity to return to its original state. Within ecological science it describes the capacity of an ecosystem to cope with an external shock, such as a forest fire or earthquake. Resilience also shares with the analysis of vulnerability of being associated with disaster studies in relation to the capacity of societies or communities to withstand and recover from human or natural hazards (Cutter, 2006). It can also be found in the psychological literature (Masten, Best & Garmezy 1990). Psychological research suggests that dealing with danger and risk, and therefore being exposed to and bouncing back or learning from adversity is usually good for us.¹ This conception of resilience fits with the underlying conception of vulnerability—namely that just as we cannot eliminate vulnerability, resilience must be the capacity to withstand and recover from 'wounding' and forms of 'harm' we cannot eliminate.

Therefore resilience as a capacity has to be a necessary part of what it means to be a healthy human and a healthy human community. To be resilient means, at the most basic level, to live, to be able to continue living in the face of often negative changes in circumstances and those *inevitable* and often unpredictable challenges all human beings and all human societies face. Chip Ward defines resilience thus 'A resilient system is adaptable and diverse. *It has some redundancy built in.* A resilient perspective acknowledges that change is constant and prediction difficult in a world that is complex and dynamic' (Ward, 2007: 5; emphasis added). A similar articulation is advanced by Folke et al, 'In contrast

¹ A recent report from the World Health Organisation (Friedli, 2009) suggests a positive link between socio-economic inequality, mental illness, and compromised psychological resilience. It suggests that: 'Inequalities in the distribution of economic and social resources explain health and other outcomes in the vast majority of studies. There is overwhelming evidence that inequality is a key cause of stress and also exacerbates the stress of coping with material deprivation. The adverse impact of stress is greater in societies where greater inequalities exist' (Friedli, 2009: 2). This empirical connection between inequality, injustice, and compromised resilience or created vulnerability, complements the work of Cutter who also makes the same connections from the perspective of cultural geography (Cutter, 2006) and Wilkinson and Pickett (2009) who also show the psychological impacts of inequality expressed and experienced in terms of shame for example. The issue of inequality (and economic growth) will be taken up in the next two chapters.

to an efficiency-driven, command-and-control approach, management that *accepts uncertainty* and seeks to build resilience can sustain social-ecological systems, especially during periods of transformation following disturbance' (Folke et al, 2002: 3; emphasis added). The notions of 'built-in redundancy' or 'slack' and the acceptance of uncertainty are key features of resilience in relation to socio-ecological management. They also resonate with some key civic republican themes around contingency, action, uncertainty, *virtú* and *fortuna* as articulated by Machiavelli and others.

The approach to resilience or the body of knowledge and experience from which the analysis develops—namely permaculture and the Transition movement, though with some discussion of how the climate change adaptation literature also uses it—means that resilience as understood here is different from how others have conceptualized it. For example, one of the most eminent theorists of risk Aaron Wildavsky has suggested that:

Resilience, therefore, requires the accumulation of large amounts of generalizable resources—such as organizational capacity, knowledge, wealth, energy, and communication—that can be used to craft solutions to problems that the people involved did not know would occur. Thus, a strategy of resilience requires much less predictive capacity but much more growth, not only in wealth, but also in knowledge. Hence it is not surprising that systems such as capitalism, based on incessant and decentralized trial and error, accumulate the most resources. Strong evidence from around the world demonstrates that such societies are richer and produce healthier people and a more vibrant natural environment. (Wildavsky and Wildavsky, 2005; emphasis added)

Now, as will rather quickly become clear, there are many differences between his understanding of resilience and the conditions he suggests that are required to create it at the social level. For example, the analysis presented here takes issue with his stress on growth and the accumulation of wealth (but not knowledge) as functional for resilience. Indeed, the counter-argument is presented, namely that orthodox economic growth undermines resilience and creates socio-ecological instability. Both the permaculture and Transition perspectives promote the view that energy descent, not greater energy use are central to a resilient society. And finally, while developed in more detail in the following three chapters, this chapter questions both the claim that capitalism is a more resilient system and that it has produced healthier people and a 'vibrant natural environment'.

Permaculture offers an extremely fruitful knowledge and practice for the design of resilient and sustainable societies, not least in that it follows natural design principles (Holmgren, 2008; Mollison, 2004). However it differs significantly from other depolitical, or non-transformative approaches that also follow natural principles such as 'natural capitalism' (Hawken, Lovins and Lovins, 1999) and 'cradle to cradle' (McDonough and Braungart, 2002).

Permaculture thinking is also a holistic and systems-based approach to understanding and designing human-nature relations. Rob Hopkins in his comparison of ‘conventional environmentalism’ and ‘the Transition approach’ contrasts ‘sustainable development’ with ‘resilience/relocalization’ (Hopkins, 2008a: 135) and while he does admit he sets up a straw person in the description of ‘conventional environmentalism’, it is interesting that he, and others, are consciously seeking to distinguish the politics and approach of sustainable development from that of the Transition movement. David Holmgren, one of the founders of permaculture thinking and originator of the concept of ‘energy descent’, contends, like Hopkins, that, ‘Mainstream approaches to sustainability tend to assume *stability if not expansion* in the energy flows available to humanity even if there are major transitions in the nature of the energy sources. Consequently, continuity of many of the structures underpinning current social and economic systems is assumed’ (Holmgren, 2008: emphasis added). This issue of energy and its absolutely central and determining role in a post-carbon transition away from unsustainability will be developed in this chapter and later. This feature of a permaculture understanding of resilience, namely not assuming system stability (whether that system be ecological, resource based, or socio-economic or political), is an extremely valuable insight given the context of issues and debate around inevitable transitions away from oil, and the likelihood of possible collapse.

Holmgren’s book *Permaculture: Principles and Pathways beyond Sustainability* draws on the work of Howard Odum, co-author of *A Prosperous Way Down* (Odum and Odum, 2001), and both books and authors present ‘energy descent’ as the driving force of future human development. This also forms the basis for the Transition view that a sustainable/resilient future relies on *less not more or the same* energy consumption patterns of today. It is fair, I think, that by ‘sustainable development’, Hopkins and Holmgren are really referring to something like ‘ecological modernization’ (Barry, 2005) or a green version of ‘business as usual’. That is, a conception of ‘sustainable development’ based on combining environmental protection with continuing orthodox economic growth and competitiveness, de-coupling energy from growth, and the creation of a ‘cleantech’ green economy and ‘sustainable wealth creation’ (Mayoh, 2009) or ‘natural capitalism’ (Hawken et al, 1999). However, all these definitional debates may simply be an issue of semantics and/or emphasis since sustainability, sustainable development, and resilience all interrelate and overlap. At one level one could see resilience and the refusal to be branded as ‘sustainability’ as a completely rational response to the self-evident dangers of cooption and ‘domestication’ that can be observed with the mainstreaming of ‘sustainable development’ and green politics (Barry, 2001).

One way perhaps of reconciling sustainability and permaculture is to see permaculture as locally based and robustly contextualized implementations of sustainability, based on the notion that there is no ‘one size fits all’ model of

sustainability. Permaculture, though rightly wary of more mainstream, reformist, and ‘business as usual’ accounts of sustainability can be viewed as a particular localized, and resilience-based conceptualization of sustainable living and the creation of ‘sustainable communities’. It is significant that this term is increasingly viewed, in the UK at least, as part of the mainstream policy response to the transition to a low-carbon, sustainable future (HMSO, 2007). It is however contested by alternative conceptions of what ‘sustainable communities’ are or could be, such as those articulated within the Transition movement, which is the focus of this chapter.

While I would argue there is obvious connection and complementarity between resilience and sustainable development (and one could make the argument that ‘resilience’ draws attention to specific dimensions of sustainability—that is, resilience as a sub-set of sustainability in some respects), I do not think it particularly fruitful to embark on a detailed exploration of whether ‘resilience’ is essentially the same as ‘sustainability’. I take it that they are closely related, but am more interested in resilience as, in part, a ‘re-branding’ or ‘up-grading’ of sustainability, and an re-focusing on the limits to growth perspective. And one can understand why this move would be motivated by a desire to dissociate what Transition initiatives and others that use resilience, from the worn out, co-opted and compromised connotations of orthodox ‘sustainable development’. Perhaps as Molly Cato has helpfully noted, ‘Sustainability is a feature of the system; resilience is the guiding design principle; permaculture is the design manual’ (personal correspondence).

Resilience does however have a tougher feel and character to it, and as viewed here represents both a critical analysis of and stands in opposition to actually existing unsustainability. There are interpretations of resilience that overlap with some key aspects of the ‘hard green’ analyses and diagnoses. Resilience can be used to frame the ecological crisis facing humanity as a recognition of the failure of sustainability and sustainable development and/or that it is ‘too late’ for sustainability. This is the position one finds for example in authors such as Lovelock and Korowicz. For them, humanity has already passed a tipping point and we are inexorably on a downward trajectory in terms of energy use, social complexity, orthodox economic growth, and population growth, and so on. Here resilience comes close to ‘survivalism’, how we save as much as we can of civilization and as many people as we can, rather than about shifting societies towards ‘sustainable’ trajectories though changes in technology, the economy, and governance.

Perhaps the most significant difference between sustainable development/sustainability and hard-green resilience, is on the issue of societal collapse and crisis. Whereas sustainable development does see and responds to a variety of inter-connected socio-ecological *problems*, some influential accounts of resilience take as given both the *inevitability* and scale of what could be called a ‘full-spectrum’ civilizational *crisis*. Problems can be (potentially) solved (hence

the dominant techno-centric problem-solution approach one finds within mainstream sustainable development discourse), whereas an inevitable crisis can only be ‘coped with’ (assuming one is prepared), but not ‘solved’. Going over the rapids when one is past the point of no return is considerably different than choosing a different branch of the river which avoids the rapids when one is upstream. Such ‘hard-green’ accounts of resilience seem to share a focus on backcasting from some predicted (near) future ‘end-state’ which cannot be avoided, and making prescriptions about how best to plan for minimizing the impact of the transition to this state.²

However, there are other (more technical and ‘means-orientated’ in some respects) understandings of resilience which do allow one to talk of a ‘resilience approach’ to sustainability. A good instance of their essential interconnection and complementarity is in the following argument from Folke et al, ‘The resilience perspective shifts policies from those that aspire to control change in systems assumed to be stable, to managing the capacity of social-ecological systems to cope with, adapt to, and shape change. *It is argued that managing for resilience enhances the likelihood of sustaining desirable pathways for development in changing environments where the future is unpredictable and surprise is likely*’ (Folke, 2006: 254; emphasis added). Both these conceptions of resilience and their relationship to sustainability will be the focus of this chapter, looking at the Transition movement and how it has understood and sought to operationalize resilience at the community level. We will also consider mainstream policy discussions of resilience and the growing academic work on resilience in relation to socio-economic relations.

RESILIENCE, SUSTAINABILITY, AND CREATIVE ADAPTIVE MANAGEMENT

So what are the differences between ‘traditional’ sustainable development/sustainability discourse and ‘resilience’ or a resilience approach to sustainability? There are at least four differences I wish to highlight. *The first* is that there is a certain quality of toughness in the concept of resilience, since it takes as given that there will be stresses and shocks that people, communities, and systems will have to cope with.³ That is, these shocks cannot be avoided or

² This end-state conception of resilience could also be thought of as ‘sustainable development/sustainability’ viewed from the point of view of climate change and peak oil, the impact of the latter meaning that sustainable development is no longer possible.

³ This quality of toughness obviously has echoes of the ‘hard greens’ discussed in the last chapter and also anticipates the complementarity between this approach to sustainability and civic republican thinking as outlined in chapter 6. In some of the psychological literature resilience is related to mental toughness and the capacity to withstand short-term discomfort

eliminated. ‘Toughness’ here should be understood as closer to flexibility and an ability to change and adapt, rather than ‘indominatable’, ‘dogmatic’, or ‘unyielding’. This quality of toughness of which I speak is perhaps best expressed in the saying that, ‘The tree that bends in the wind does not break’. The following fable ‘The Oak and the Reed’ nicely brings this out:

The Oak spoke one day to the Reed
 ‘You have good reason to complain;
 A Wren for you is a load indeed;
 The smallest wind bends you in twain.
 You are forced to bend your head;
 While my crown faces the plains
 And not content to block the sun
 Braves the efforts of the rains.
 What for you is a North Wind is for me but a zephyr.
 Were you to grow within my shade
 Which covers the whole neighbourhood
 You’d have no reason to be afraid
 For I would keep you from the storm.
 Instead you usually grow
 In places humid, where the winds doth blow.
 Nature to thee hath been unkind’.
 ‘Your compassion’, replied the Reed
 ‘Shows a noble character indeed;
 But do not worry: the winds for me
 Are much less dangerous than for thee;
 I bend, not break. You have ‘til now
 Resisted their great force unbowed,
 But beware’.
 As he said these very words
 A violent angry storm arose.
 The tree held strong; the Reed he bent.
 The wind redoubled and did not relent,
 Until finally it uprooted the poor Oak
 Whose head had been in the heavens
 And roots among the dead folk.
 Jean de la Fontaine (1621–1695)

The *dramatis personae* are as follows: the wind represents (take your pick) climate change, peak oil, or ‘ecological and resource crises’; the Oak represents inflexible, dogmatic social thinking and associated large-scale and centralized

for long-term benefit but also accepting discomfort and stress as a normal part of life. It is interesting that this not only harks back to the discussion in the previous chapter on acknowledging vulnerability and associated concepts of pain, harm, and ultimately death, but also that the psychological capacity for resilience is an indication of a healthy, mature as opposed to an immature or unhealthy person.

systems; while the Reed denotes, more local and flexible forms of social thinking and organization. The toughness of resilience may also have something to do with the fact that the discourse of resilience within sustainability/green politics has arisen, as in the Transition movement, against the backdrop of climate change and peak oil, two huge, challenging and interrelated issues. Resilience discourse or a resilience approach to sustainable development can, when examined in the practices of the Transition movement, be viewed as akin to undertaking a SWOT analysis of one's community, an informed examination of its Strengths, Weaknesses, Opportunities, and Threats. This sense of resilience also expresses itself in terms of practicality and concern with implementing and testing changes and new ways of doing things. Again, this focus on the practical (as opposed to the ideological and oppositional) typifies Transition initiatives.⁴

The second—and motivating/driving/underpinning the toughness above—is that resilience brings the environment (specifically energy and resources) back centre-stage to the politics of sustainability. It recalls the early 'limits to growth' analysis in general and the energy-informed analysis of the early green thinker Nicholas Georgescu-Roegen (Georgescu-Roegen, 1971; Cato, 2008a: 25–26; Barry, 2007a). It also explicitly builds on the systems and cybernetic thinking and methodological approach of the original 'limits to growth' report and its subsequent development over the last three decades (Meadows, et al, 1972, 1993, 2004; Holling, 1973, 1993).

That this is the case should come as no surprise given the origins of resilience in ecological science and its concern with energy and resource stocks and flows within ecosystems and how the availability of resources and energy determine the scale of an ecosystem or specific sub-systems or the population of specific species. Ecosystem resilience is a function of available energy and resources coupled with ecosystem diversity and the capacity of the ecosystem to adapt to a new state, modelling via a 'complex adaptive systems' approach (Webb, 2007: 470). This adaptive focus based on energy and resource constraints, clearly fits with the view articulated by Folke et al. above as well as harking back to the limits to growth thesis.⁵ Extending this resource and energy analysis to socio-ecological systems is a key character of the focus on resilience, such as we find in the Transition movement. For example, the Transition movement is explicitly built upon permaculture foundations (Hopkins, 2008a), which itself has its roots in the limits to growth and first oil shock experience of the early 1970s, and a central insight of permaculture is constant

⁴ It also relates to the argument made later in this chapter of Transition initiatives as forms of 'concrete utopian' experiments in new ways of living.

⁵ This adaptive focus will also be developed in the following chapters on green political economy and green republicanism.

adaptation and the need to create resilience within socio-ecological productive systems (Holmgren, 2009).

A third, and perhaps one of the most significant differences (or difference in emphasis) between sustainable development/sustainability and resilience, is the explicit ‘inner’ focus and psychological dimensions of resilience and the transition to sustainability. This aspect of resilience can be seen to have its origins in the psychological conceptualizations of resilience and vulnerability (as indicated in the opening section of the previous chapter). Instances of this psychological approach are emerging in relation to climate change. Edwards and Buzzell for example, note, ‘Few of us are eager to contemplate, let alone truly face, these looming changes. Just the threat of losing chunks of the comfortable way of life we’re accustomed to (or aspiring to) is a frightening-enough prospect. But there’s no avoiding the current facts and trends of the human and planetary situation. And as the edges of our familiar reality begin to unravel, more and more people are reacting psychologically’ (Edwards and Buzzell, 2008).

Other examples include the work of UK eco-psychologist Mary-Jane Rust, whose work has been acknowledged as central to the Transition vision (Hopkins, 2008a). For her, ‘Of the many important messages within this movement [Transition], local resilience seems particularly useful, especially in the light of the current financial crash. If we get on with visioning and planning for a future that is possible, one step at a time, we can achieve that resilience’ (Rust, 2008: 11). One could take Rust’s point further and link it back to some points made in the last chapter. The local, incremental, ‘coping mechanism’ approach of the Transition movement, addresses a need to respond to the issues of climate change, peak oil, food insecurity, quality of life, and so on (with an explicit recognition of the uncertainty in terms of effectiveness and outcomes). And it does so, in large part, in a ‘learning by doing’, bootstrapping manner (at this stage largely outside the state and formal market economy), and so constitutes a path of local (and therefore limited) empowerment, but empowerment nonetheless. This is an important point in terms of the Transition movement’s focus on ‘re-skilling people’. Encouraging collective action and forms of provisioning outside the state and capitalist economy, provides a practical response to what Michael Lerner calls ‘surplus powerlessness’ (Lerner, 1986), the ‘learned helplessness’ that theorists such as Illich and Marcuse identified as a result of modern industrial (state and formal market) institutions (Illich, 1973; Marcuse, 1964). Such small-scale initiatives, thus can be seen to constitute utopian/anticipatory moves by collectives (a ‘concrete utopianism’) that combine an existential commitment to open-ended hope, with a scale-appropriate and realistic intervention, even though there is full acknowledgement of the limits of such localized interventions as a ‘solution’ to global ecological problems. But as forms of innovative, collective responses to issues like climate change, they are superior to the ‘LED light bulb’ solution,

and can be viewed as necessary, but not sufficient, conditions for wider social and economic transformation.⁶

In fact Rust makes an explicit connection with the need for ‘coping strategies’ in relation to ecological challenges (and thus to adaptation), as opposed to ‘problem-solution’ ones. As she argues, ‘If the mission is to “save the planet” we may indeed feel, at times, that our mission is futile. But if our intention is more aligned with the therapeutic intention of healing, then perhaps a different picture emerges. *Whereas saving implies a mission that will succeed or fail, healing can happen right to the end of life in all of our relationships, human and more*’ (Rust, 2008: 12; emphasis added). This resonates with casting green politics as a politics of actually existing unsustainability, and focusing attention on reducing unsustainability in the here and now, that is reduce suffering and obstacles to human (and non-human) flourishing now as best we can, with the tools and institutions we have now, as opposed to achieving sustainability in a future ‘sustainable society’ with tools and institutions as yet created. A key feature here of this therapeutic/psychological dimension is its focus on relationships as foundational to our understanding of the causes of unsustainable, non-resilient/vulnerable forms of in/action. It also gestures towards the view that in re/building relationships (with and between communities and people, with place and with planet) lies recovery and our capacity to cope with the challenges of the transition away from unsustainability. As Rust puts it, ‘the journey towards sustainable living [is] a therapeutic journey’ (Rust, 2008: 19).⁷

A fourth, and most obvious, difference about resilience over sustainable development, is the way in which issues of vulnerability, provisionality/impermanence and associated notions of ‘harm’, ‘protection’, and the idea of ‘coping mechanisms’ (as outlined in the last chapter and Barry (1999a)) fit with the concern with adaptation between human and non-human complex systems. Flexibility and creativity seem to be constituent elements of resilience in a way which they are not so prominent within ‘sustainability’ discourse. The focus on provisionality/impermanence—in part a reflection of the dynamic character of the interaction between human and non-human systems—also finds its counterpart in the vulnerability discourse’s concern with exploring

⁶ I owe the points made in this paragraph to Peter Doran.

⁷ It is also worth pointing out again that this focus on healing is one central to eco-feminism as indicated in the previous chapter. This is important since it demonstrates that not all therapeutic approaches to (green) politics are conservative or individualistic and apolitical. There are of course strands in green politics which do promote this ‘change yourself and not the society/world’, individual lifestyle change and not structural change etc. Elsewhere, I criticised deep ecology for doing precisely that (Barry, 1994, 1999). Others such as Michael Maniates, have also identified the deep flaws of this individualistic, depoliticised approach (Maniates, 2001).

what makes for resilient and non-resilient human cultures and systems (the topic of many ‘hard greens’).

The notion of resilience seems to call for or necessitate creativity and innovation along the lines of the old adage of ‘necessity being the mother of invention’, but also due to the greater attention to provisionality, impermanence, and temporary balance/equilibria—in part based on the insights of far from equilibrium systems that one finds in ecological science and ecological economics, as will be discussed in chapter 6. It therefore seems to denote greater scepticism about the applicability of simply ‘greening’ business as usual, of viewing the creation of a more sustainable society as a mere technological ‘add-on’ rather than requiring something significantly more imaginative and far-reaching. Creativity and imagination across social, economic, and cultural levels, will be argued to be central to creating more resilient communities, since these communities have to be seen as forms of social learning, and their members viewed as active learners—or pioneers as I suggest later in the chapter.

A *fifth* and related characteristic worth mentioning (and one that links to the discussions of the previous chapter) is the way in which resilience denotes a form of character and associated virtues. Resilience can be regarded itself as a virtue, linked to older virtues of fortitude and also expressing elements of courage, foresight, and prudence.

ENERGY AND RESILIENCE: GOVERNMENT, INDUSTRY, AND TRANSITION MOVEMENT PERSPECTIVES

The Transition movement is a growing network of towns, villages, and local communities in the UK, Ireland, and beyond, preparing themselves for the twin challenges and opportunities of ‘peak oil’ and ‘climate change’. I focus here on the way its perspective combines peak oil, energy descent, adaptation to climate change, and permaculture (Barry and Quilley, 2009). Before proceeding it is worth pointing out that another unique feature of the Transition movement is its upbeat, inclusive, and positive character. It explicitly sets out to be as positive as possible about future prospects for communities as we face the end of the age of peak oil and the impacts of a climate-changed world. I say this because it distinguishes the Transition movement view from the pessimistic diagnosis and prognosis one finds particularly in much ‘peak oil’ discourse.

One of the main, and often under-emphasized, aspects of a future renewable energy economy (viewed globally), is that it is one with *less* not the same or more energy than we enjoy at present. Ruling out nuclear power and large-scale

biofuels, if we wish to create a renewable energy economy, this means an economy with *less* energy.⁸ This is why a, if not the, key aspect of the Transition process is for each community to create what is called an Energy Descent Action Plan (EDAP). Hopkins describes energy descent as, ‘the continual decline in net energy supporting humanity, a decline which mirrors the ascent in net energy that has taken place since the Industrial Revolution. It also refers to a future scenario in which humanity has successfully adapted to the declining net energy availability and has become more localized and self-reliant. It is a term favoured by people looking towards energy peak as an opportunity for positive change rather than an inevitable disaster’ (Hopkins, 2006: 19). As Ted Trainer has pointed out, a completely renewable energy economy cannot sustain our consumer culture (Trainer, 2007).

For Hopkins, ‘An EDAP sets out a vision of a powered-down, resilient, relocalized future, and then backcasts, in a series of practical steps, creating a map for getting from here to there’ (Hopkins, 2008a: 172). Thus, the Transition process is about reducing present unsustainability while also preparing communities for less unsustainable lives with less energy within the context of a climate changed world. Most governments and politicians do not explicitly accept the notion of ‘peak oil’, though there are countries in Europe such as Denmark, Sweden, the Netherlands, and the Republic of Ireland (Barry, 2011a) that seem to be moving in that direction. However, there is an emerging, complex, and often compromised manner in which both government and economic actors are engaging with this idea of energy descent—largely though the ‘energy (in)security’ frame. Such engagements serve both to underscore the essential energy descent insight of Transition, as well as how a concern with declining energy supplies does not translate in any straightforward manner, that is, strictly as the Transition vision sees it, into other contexts.

Two 2008 reports on energy futures for the UK will be considered here, to illustrate the ‘state of the debate’ on transition to a low-carbon economy and the issue of translation. One is from the UK government, and the other from

⁸ A powerful and revealing way to think about this issue of the energy basis of contemporary industrial societies, and the energy basis of a renewable post-carbon future, is Richard Heinberg’s concept of ‘energy slaves’ (Heinberg, 2007). ‘Energy slave’ conveys the amount of energy individuals in those societies can command converted into the ‘work’ an individual would have to do (by cycling for 24 hours a day) to produce an equivalent amount of carbon energy. It turns out that on average each person in the industrialised minority world commands around 150 energy slaves. This way of thinking not only ‘de-sequesters’ or re-frames how we think about the energy basis of society (something the ecological economist pioneer Georgescu-Roegen tried and failed to persuade the neoclassical economics discipline to take seriously and integrate into its analytical frame). It also begins to sketch out some of the broad outlines of a renewable energy society. If we no longer have 150 energy slaves, then we are going to have to imagine and be creative about envisioning very different sorts of lives, societies, leisure pursuits, forms of transport etc. to ensure high levels of human well-being and flourishing.

the newly formed Industry Taskforce on Peak Oil and Energy Security. The UK Government report, entitled, *Powering our Lives: Sustainable Energy Management and the Built Environment* concludes that the key strategic challenges for the UK are: ‘overcoming the lock-in to current centralized systems; enabling greater activity at a wider range of scales; exploiting an improved understanding of social and psychological components of energy behaviours to encourage engagement with decarbonization; assessing security and resilience matters in an appropriately integrated way’. (Foresight, 2008: 5). As such it offers a standard focus on energy production and security as the main issues to be considered.

However, the report does reference Transition Towns twice (Foresight, 2008: 92 and 115), and also in one of its four scenarios, ‘Sunshine State’, convey some aspects of the Transition vision. The other scenarios are ‘Resourceful Regions’, ‘Carbon Creativity’ and ‘Green Growth’ (Foresight, 2008: 11–12). In the ‘Sunshine State’ scenario:

International solidarity has fallen by the wayside in response to climate change and expensive energy. Instead the Government has fostered an emphasis on localism to respond to energy problems supported by a shift in social values after a period of outages and fuel shortages. A Sunshine Index is the main metric of progress, not Gross Domestic Product. Home insulation and other energy efficiency measures are universal following strong regulation. Retrofitting is sometimes done alongside adaptation work to help buildings cope with warmer and wetter conditions. Green roofs and parks are common as part of comprehensive local sustainable drainage systems to counter flooding. There are more local shopping streets and other community resources, partly because of planning decisions intended to promote local autonomy and partly because of municipal enterprise. New build commonly uses off-site construction methods, often from overseas. (Foresight, 2008: 71)

However, unlike the Transition movement analysis, the Foresight study has the ‘Sunshine State’ scenario involving greater not less fossil fuel use (ibid. 75), but like Transition, it notes that ‘a community approach, *relatively uncommon in the UK today*, becomes increasingly prevalent’ (ibid. 92; emphasis added). This community approach has also been suggested by Jörg Friedrichs based on his historical studies of how societies in the past have reacted to a sharp decline in oil, as one possible response to peak oil (Friedrichs, 2010). Alongside what he calls ‘socio-economic adaptation’ (with Cuba in the early 1990s being the historical example), the other possible responses he lists are ‘predatory militarism’ (Japan prior to WWII) and ‘totalitarian retrenchment’ (North Korea, 1990s). In the Foresight report, there is also an intriguing mention (nothing more) to what the report terms ‘An Energy Reduction Strategy’ (ibid. 174).

It was a world away from the ‘live for the present’ consumerism of the last part of the twentieth century, and the shock has led to the emergence of new social

values, which reinforce the importance of self-direction and self-determination, but also the need to try new ideas to resolve problems. *Although there is technological innovation in this world, the principal driver of change is the development of new social institutions, many of which are about better ways of sharing limited resources at a local or community level.* One of the motivations for this has been deteriorating mental health outcomes, worsened by climate change anxieties, which could have had huge public health costs if not addressed. Many of the new social institutions consider tackling mental health to be their priority, particularly in terms of the impact it has on the isolated and more vulnerable members of society who perhaps do not have strong family support structures in place. This is a world where almost anything which can be decentralized has been. . . . Expectations have shifted from the turn of the century, this world is slower and it is different, *but it is still an affluent world by any historical standards.* (ibid. 2008: 171; 175; emphases added)

This is the nearest we have to the UK government officially endorsing the reality of peak oil. It also outlines a positive hopeful and empowering possible energy future, and one that would not look out of place in a Green Party manifesto, or the outcome of a Transition town ‘open space’ event. Indeed this ‘Sunshine State’ scenario is largely compatible with much of what this book argues in its suggestion of a future in which consumerism has less of a hold, where social innovation drives technological innovation, its identification of vulnerability and psychological health, and the statement at the end that despite this being very different from current high consumer societies, this society is ‘*still an affluent world by any historical standards*’. However, despite that, it is clear from this report’s findings that *energy decarbonization is preferred to energy descent*—a strategy for using more low-carbon energy rather than low energy as it were. In part, this is due to the main focus of this report, and the principal driver for energy innovation, being located in climate change rather than peak oil and the imperative of economic and energy growth. The report does, however, strongly recommend the decentralization of energy production and consumption, which obviously is in keeping with the Transition vision and that of green politics (ibid. 153).

The report, while in many respects offering some welcome insights in terms of challenging the ‘lock-in’ to centralized systems of energy production, does not deal with ‘lock-in’ to patterns of development, land-use, or lifestyles which require and demand high carbon energy use.⁹ And while it does talk of ‘integrated resilience planning’ at the local and regional level, it does so on the basis of ‘energy efficiency and carbon reductions’ (ibid. 158), rather than

⁹ The report does offer some interesting comments on vulnerability: ‘Vulnerability to energy security threats is not uniformly distributed across society. In addition, new sources of vulnerability, linked to the capacity to cope with the impacts of a changing climate, are likely to emerge. *The future will require a more sophisticated understanding of vulnerability than that captured by the current concept of fuel poverty*’ (ibid. 157; emphasis added).

‘energy reduction and carbon efficiency’. Thus the report echoes the view of the then minister for Climate Change and Energy, Ed Miliband, who denied peak oil as a problem for the UK, or indeed that unlimited low-carbon economic growth is impossible (Miliband, Hopkins, and Lipman, 2009). In his view it is firmly climate change, not peak oil which is the primary and most important energy policy challenge facing the UK, presumably on the reasoning that the UK has ample sources of domestic coal. While there is much to criticize in the report, it is remarkable and welcome that the state is envisioning a broad range of possible transition scenarios, including some radical options for the future.

On the other hand, the recently established UK Industry Taskforce on Peak Oil and Energy Security, flatly contradicts and challenges the attitude of the UK government in regards to planning for the country’s energy future. While not neglecting climate change, the taskforce sees peak oil as a reality, a major risk, and argues for a concerted focus on planning for a low-carbon and post-oil future. As its first report, *The Oil Crunch*, puts it, ‘The speed with which the UK would need to mobilize for a ‘descent’ peak oil scenario, much less a ‘collapse’ scenario, exceeds anything that has yet been considered in the climate-change policy-response arena’ (Industry Taskforce on Peak Oil and Energy Security, 2008: 6; emphasis added). In other words, a focus on climate change and reducing carbon emissions without an equal if not more focus on the risks from peak oil, leaves the UK economy extremely unprepared and therefore extremely vulnerable. As the report puts it, ‘On balance, having reviewed the state of play in global oil production, the taskforce considers that the ‘descent’ scenario is a highly probable global outcome’ (ibid. 25), against the worrying backdrop that, as the authors of the report see it, ‘Neither the government, nor the public, nor many companies, seem to be aware of the dangers the UK economy faces from imminent peak oil. Big as emerging economic problems are as a result of the credit crunch, *peak oil means a very high probability of worse problems to come. The risks to UK society from peak oil are greater than those routinely on the government’s risk-radar at present, including terrorism*’ (ibid. 29; emphasis added).¹⁰

Unlike the government, both the Industry taskforce and the Transition movement, avoid the problems of only focusing on climate change as a driver for a new low-carbon economy. But unlike the Industry taskforce, the Transition movement accepts energy descent not just carbon energy descent or decarbonization as a key feature of the transition. However, like the UK

¹⁰ The reference here to peak oil being greater to the UK than the threat of terrorism is a direct echo of the statement by the UK’s former Chief Scientist, King, who famously stated that ‘climate change was a bigger threat than global terrorism’. In many ways it can be seen as a public expression, though from a very different source, of both the ‘peak oil’ discourse and the Transition one which seeks to ‘re-balance’ the dominance of the climate change frame within public and political debate.

government, the taskforce comes down to supporting nuclear power (as a low-carbon energy source) as an inevitable part of the future energy mix (ibid. 30), since like the government the taskforce assumes continual increases in energy use, something explicitly rejected by the Transition movement.

PERMACULTURE, ‘BUILT-IN REDUNDANCY’ FOR ADAPTIVE MANAGEMENT, AND THE TRANSITION MOVEMENT

Molly Scott-Cato defines permaculture as follows, ‘Permaculture is not a set of rules; it is a process of design based around principles found in the natural world, of cooperation and mutually beneficial relationships, and translating these principles into actions’ (Scott-Cato, 2011: 176), a key feature of which is ‘considered’ or ‘slow thinking’ before you act. Permaculture uses the diversity, stability, and resilience of natural ecosystems to provide a framework and guidance for people to develop their own sustainable solutions to the problems facing their world, on a local, national, or global scale. It is based on the philosophy of cooperation with nature and caring for both planet and people. But it is not about any simplistic or prescriptive ‘reading off’ of how we should organize social systems from nature. It is about observing natural design principles and seeing if they ‘work’ for managing human-nature relations, not about applying such principles in some unreflective manner.

Following this permaculture ethos, Transition initiatives can be seen as grassroots attempts to self-consciously enhance local adaptive capacity. They seek to do this particularly through increasing self-organization and self-management at the local, community level. That is, a key, if not the key to local resilience is the rebuilding of community—discussed in more detail below—and the protection and promotion of liberty, diversity, and pluralism. This resilience understanding of Transition initiatives views them as forms of localized adaptive and creative co-management processes. As forms of localized adaptive forms of socio-ecological management, Transition movement initiatives have resonances with some earlier work of mine on ‘collective ecological management’ (Barry, 1999a). This form of management I viewed as culturally embedded, and unlike traditional state (hierarchical, centralized), or market forms (private, preference aggregating) forms of management and decision-making, explicitly included normative questions. Collective ecological management I also viewed as orientated towards flexible and open-ended adaptation rather than the imposition of fixed goals or objectives (which

would prioritize efficiency over adaptation) on socio-ecological systems.¹¹ I thus viewed collective ecological management as a ‘coping mechanism’ (Barry, 1999a: 115), and one I think that is compatible with the notion of complex adaptive management.

The Transition movement’s focus on adaptation as an appropriate response to climate change and peak oil is similar to Hulme’s suggestion for ‘clumsy solutions’ (Hulme, 2009: 337–340). His argument is that we need to see climate change as a ‘wicked problem’, and disabuse ourselves of the attraction/temptation to define it as a ‘mega-problem’ with universal and unitary ‘solutions’. Instead, he suggests we need to accept that clumsy, contradictory, pluralist, and multi-level approaches are required. Hulme’s rejection of a simplistic ‘problem-solution’ view makes his approach similar to recommending ‘coping with’ rather than ‘solving’ dilemmas. As he suggests, ‘Clumsiness suggests that we construct our problems in such a way as to *make them fit our capabilities for solution-making* rather than imagine that our human ingenuity can find solutions to whatever problems we casually invent’ (ibid. 338; emphasis added). His admission that such clumsy solutions are ‘sub-optimal’ both in design and outcome, can be read as another way of expressing the important permaculture (Holmgren, 2008) and resilience theory (Thompkins and Adger, 2004) insight of the need to design ‘slack’ and ‘redundancy’ into any resilient system or intervention. Thompkins and Adger (2004) call this ‘head room’—that systems are so designed with sufficient room for manoeuvre so that there is enough space and time for adapting and changing tack as needs be. As Thomas and Twyman put it, and in a manner very much consistent with permaculture and the Transition movement’s analysis, ‘policy responses to climate change should be oriented towards creating or facilitating the emergence of “head room” thus enabling, rather than inhibiting, local, and regional level adaptation options’ (2005: 121).

An elaboration of this idea of ‘head room’ is contained in the argument from Rockström et al. in their widely cited 2009 paper, ‘Planetary Boundaries: Exploring the Safe Operating Space for Humanity’ (Rockström et al. 2009). That paper argues that the identification of thresholds is central to help us reduce unsustainability and associated vulnerability and potential and actual harm for humanity. For them, the concept of “planetary boundaries” lays the groundwork for shifting our approach to governance and management, away from the essentially sectoral analyses of limits to growth aimed at minimizing negative externalities, toward the estimation of the safe space for human

¹¹ A similar approach, but one which develops this concept in much more detail and also is more grounded in applying theoretical insights, is Peter Cannavò’s book *The Working Landscape* (Cannavò, 2007). As discussed in more detail in chapter 5 on Green political economy, while *adaptation* is one of the preferred goals over *efficiency* in terms of productive relations between social and ecological systems, *sufficiency* over *maximization* is the preferred goal in terms of consumption.

development' (ibid. 472). While accepting the underlying reality of 'limits to growth', they accept that these planetary thresholds are not well understood and 'fuzzy', but argue that of the nine planetary boundaries they have identified, humanity has already passed three (climate change, the rate of biodiversity loss, and the rate of interference with the nitrogen cycle).

I think Hulme's injunction for 'clumsy' solutions is compatible with the findings of the Rockström et al. paper. Hulme's suggestion should be read as indicating an adaptive (and creative) approach to climate change, much along the lines indicated by the Transition movement (which adds the peak oil insight), and permaculture principles and 'adaptive management' approaches to human-nature relations. An obvious, but nonetheless significant, starting point for the Transition perspective is brought into sharper relief here, namely the *inevitability of the transition* to a low energy, carbon-constrained and climate-changed future.¹² It can be viewed as indicating adapting to the inevitable, in much the same way that in the last chapter vulnerability and dependence were also seen as ineliminable and therefore inevitable. In both circumstances what is needed are creative forms of adaptation and developing strategies of how to cope and manage change effectively.

RESILIENCE, VIRTUE, AND CREATIVITY

Resilience, to recap, is a way of coping with rather than eliminating vulnerability and contingency. In many respects, it can be seen as a modern idiom for what once was termed one of the virtues. For example, the cardinal virtue of 'fortitude' or 'courage' in classical thought would seem closely related to what resilience at the level of the individual means—the capacity to overcome adversity, not in the sense of destroying or eliminating adversity, but 'coping' or coming through successfully. This much is clear from the psychological resilience research and literature.¹³ It can also be found in more ethical discussions, as outlined in the previous chapter where resilience has been viewed as, 'Soberly facing the limitations of self-sufficiency and self-determination [as] a crucial dimension of sustaining (and sometimes regaining) a felt sense of dignity through genuine communion with others in the face of life's

¹² As Hopkins puts it, 'In my opinion, the shift in focus from the global to the local will not be a choice, nor is it something we have to campaign and protest for, it is utterly inevitable. Without cheap oil it becomes unfeasible, and we are already starting to see this' (Hopkins, 2008b: 4).

¹³ Both vulnerability and resilience can be viewed as connected to human capabilities (as in Sen's approach and that of Nussbaum), and therefore may lead in a neo-Aristotelian direction in terms of denoting a particular view of human flourishing, and might we strengthen basic human capacities in order to promote resilience, diminish vulnerability and so enhance human flourishing?

unpredictability and risks, its hardships and tragic turns' (Carse, 2006: 48). That is, the vulnerabilities we face, even as individuals, are often such that we cannot cope with them on our own, but need the help and support of others.

The concept of resilience has a double meaning in the discussion here. On the one hand it denotes the capacity or quality of communities and individuals to cope with various external shocks (principally resource and environmental shocks such as peak oil or climate change). But it also has a cultural and psychological dimension in that resilient individuals or communities are ones that demonstrate certain virtues or characteristics, such as flexibility, adaptability, and adeptness in responding, willingness to change, including especially one's views or previously held beliefs or values, and foresight to plan ahead for contingencies, envisage different scenarios and the ability to make informed judgements. As Buell argues, echoing a point made earlier, 'crisis, even at its darkest, is necessary to face. Even more, it is not just necessary to face; it is actually good to think with, especially as people realize how deeply it is woven into their daily lives' (Buell, 2004: 23).

If, as suggested throughout this book, the world is facing a period of unprecedented change in relation to energy, the global economy, climate, water, biodiversity, and so on, then as suggested in the last chapter, those who are psychologically and intellectually prepared for those challenges are, *ceteris paribus*, not only pioneers (in the sense indicated below), but also better equipped in terms of being braced and prepared mentally for the change or shock. But they are also probably better prepared to adapt to the shock—either through changing their behaviour, habits, or ideas, or materially changing their social and/or environmental conditions to ensure perseverance and maintain the conditions for flourishing. Hence, dogmatic and inflexible thinking, world views, and thought processes are generally maladaptive and can compromise resilience.¹⁴ This is the lesson of the fable of the Oak and the Reed. Thus, if as suggested in the critique of neoclassical economics later, this form of thinking is (or has become) a dogmatic ideology, this gives us even more reason (apart from the substance of many of its prescriptions and analyses) to seek to move beyond it. This is a fortiori if, as I will demonstrate, this one way of thinking about the economy has 'crowded out' other possible alternatives.

In other words, resilience is about what happens *before a crisis or shock in terms of institutional capacity and cultivating appropriate dispositions habits and virtues*, as well as how a person or community responds to an external shock, and how they cope with it and come out the other side. There is always a potential creative dimension to resilience and the ability to cope with

¹⁴ Though it also has to be admitted that having a compelling and coherent narrative, such as a strong, if dogmatic religious belief system for example, which explains, if not predicts, an external shock, can promote resilience but usually without development or learning.

vulnerabilities and overcome or adapt to dilemmas. It is for this reason that in the Transition movement literature we find ‘breakthrough’ being promoted as a creative response to perceived or actual ‘breakdown’, or in the title of Homer-Dixon’s book *The Upside of Down*. Here resilience cannot be understood as the capacity for a system, individual, or community to withstand a shock and return to its *original* state. Rather, it denotes also the capacity to evolve or develop or move to a *different* state—better (however judged) if successful, worse (however judged) if unsuccessful. Hence the utopian or emergent possibilities for change and development are contained within the concept and practices of resilience as articulated by the Transition movement. Here notions such as improvisation, responsible and informed risk-taking are appropriate to attach to resilience, as well as viewing it as spontaneous, creative, messy, and unpredictable. That is, it is an open-ended process aimed to reduce unsustainability as much as possible, and is both disruptive and transgressive.

A similar argument for viewing ecological threats as creative opportunities can also be found in Mike Hulme’s book, *Why We Disagree About Climate Change*. In the concluding chapter, he writes, in a manner very much in keeping with Homer-Dixon above, and the ‘creative, positive’ ethos of the Transition movement, as follows:

climate change is not a problem that can be solved in the sense that, for example, technical and political resources were mobilized to solve the problem of stratospheric ozone depletion. Instead, I suggest a different starting point for coming to terms with the idea of climate change. I believe that human beings are more than material objects and that climate is more than a physical category. *I suggest we need to reveal the creative, psychological, ethical, and spiritual work that climate change is doing for us. Understanding the ways in which climate change connects with foundational human instincts opens up possibilities for re-situating culture and the human spirit at the heart of our understanding of our changing climate. Rather than catalysing disagreements about how, when, and where to tackle climate change, the idea of climate change should be seen as an intellectual resource around which our collective and personal identities and projects can form and take shape.* We need to ask not what we can do for climate change, but to ask what climate change can do for us. (Hulme, 2009: 326; emphasis added)

Viewing climate change (like peak oil in the Transition movement) not as a biophysical threat to be ‘defeated’ or ‘solved’, but as an imaginative call for cultural creativity in how we adapt in the process of ‘coping with’ this dynamic socio-cultural-material process is, I would suggest based on psychological, political, organizational, and systems research, a more productive and fruitful (not to say hopeful) way to approach interpreting and understanding anthropogenic climate change. As both Hulme and Hopkins, and others such as Alastair McIntosh (McIntosh, 2008) put it, we need culturally grounded

narratives about our responses to and meanings of climate change as much as scientific evidence of its causes and effects.¹⁵

This creative approach can be extended to recognition of the utility of narrative approaches to peak oil and climate change. This narrative framing can be found in Hopkins' support and encouragement for 'Transition Tales' in terms of envisioning futures for communities in a post-oil, climate-changed world (Hopkins, 2008a). It can also be seen in Hulme's work, 'We will continue to create and tell new stories about climate change and mobilize them in support of our projects. These stories may teach us to embark on different projects' (Hulme, 2009: 327). As the Alliance of Religions and Conservation has noted (and referred to by Hulme, 2009: 356), 'Without . . . these areas [of narrative, myth, and metaphor], policies will have very few real roots . . . the climate change 'activist' world and indeed the environmental world has all too often sought refuges in random use of apocalyptic imagery without seeking to harness the power of narrative. *Without narrative, few people are ever moved to change or adapt*' (Alliance of Religions and Conservation 2007; emphasis added).

This focus on narratives links to some of the deeper questions of identity which not only touches upon the role of character and virtue within the transition away from actually existing unsustainability (Barry, 1999a), but which are at the heart of the Transition movement. An indication of more radical possibilities are where the latter explicitly calls for new subjectivities to cope with the challenges and opportunities of the inevitable transition away from unsustainability, climate change, and envisaging a post- growth economy and society (Barry, 2009a). It has long been a truism of more radical conceptions of green politics that to live in a less unsustainable society is to live in a *different type of society* not simply the 'greening' of the existing one (Barry, 1999a), given the scale of change required for addressing unsustainability. However, what we are faced with here is the challenge that to live in that different type of society requires different collective narratives by which to live, but which also includes different self-understandings. The capacity to respond imaginatively to a threat, to see its creative possibilities for personal and well as collective change, while also recognizing its evident dangers. Like the

¹⁵ When Hulme writes that 'Climate change can help us bring the physical and the cultural, the material and spiritual, into a new realignment . . . Climate change thus becomes a mirror into which we can look and see exposed both our individual selves and our collective societies. We can use the stories we tell about climate change—the myths we construct—to rethink the ways in which we connect our cultural, spiritual and material pursuits' (Hulme, 2009: 357), he is within the same creative, positive discourse characterised by the Transition movement, though more in keeping with the overtly spiritual inclinations of McIntosh or a deep ecological position. The recognition of the need to engage with cultural and explicitly normative issues such as peoples' values has also been the subject of a major piece of work commissioned by WWF, entitled *Common Cause: The Case for Working with our Cultural Values* (Compton, 2010).

inflexibility of the doomed oak tree that did not bend in the wind in the fable above, it is ‘concrete thinking’ and a dogged resistance to change, as much as actual concrete, which stands in the way of responding imaginatively and positively to the challenges of peak oil and climate change. To the extent that the flexibility expressed within resilience can be viewed as an ecological virtue, to the same extent we can view dogmatic, inflexible thinking as an ecological vice.

This creative capacity is usually, though not necessarily, connected to notions such as hope (also a virtue), and a positive view of the future or of future potentialities—hence the utopian dimension (and linking back to Lear’s notion of ‘radical hope’ in the previous chapter (Lear, 2006)). There is also a connection here between this idea of a ‘concrete utopia’, (radical) hope and what Duncombe calls ‘political dreaming’. By ‘political dreaming’ he means not mere abstract and passive ‘wish fulfilment’ or the realization of the impossible. Duncombe distinguishes between ‘dreaming’ and pursuing what he calls the ‘unconditional impossible demand’ (the insistence that no compromise can be tolerated in the pursuit of the achievement of social justice or sustainability). For Duncombe, ‘political dreams, if they are ethical [that is, if they are honest in what they communicate] are always recognisable as dreams . . . *The problem with the ‘unconditional impossible demand’ is not that it is a dream, but that it is a fantasy masquerading as a possible reality*’ (Duncombe, 2007:168–169).¹⁶ Transition initiatives could be viewed as utopian practices grounded not in abstract blue or green prints, but much more focused and localized possibilities for new ways of living and flourishing. In many respects, as outlined in chapter 1, they could be viewed as localized examples of people taking action against actually existing unsustainability, and seeking to remove obstacles in the way of living less unsustainably as much as motivated by a coherent and worked-out sense of what a future sustainable community at the local level may look like. That is, they are political dreams in Duncombe’s terms, not fantasies.

Hence Transition initiatives can be viewed as ‘concrete utopian’ as opposed to ‘abstract utopian’ experiments (Barry, 2006b), which directly connects them to the issue of overcoming powerlessness as noted above as well as Frankel’s observation that, ‘We often forget that the mere achievement of a peaceful world, free of starvation, homelessness, and poverty, is a radical utopia that is practically feasible at this very moment’ (Frankel, 1987: 55). Here the Transition movement’s use of open space technology and world café for collective meetings, to processes of imagineering and collective visioning (Hopkins, 2008a: chapter 7), ensure that whatever vision, policies, or proposals emerge from such collective processes are (usually) grounded, practicable, doable, and

¹⁶ Duncombe’s ideas are discussed in Compton (2010).

related to what people themselves want or desire for themselves and their specific communities. This ‘concrete utopianism’ can be seen not only in the realism and honesty with which the Transition movement publicly acknowledges that a *low energy* not simply a *low-carbon* future is the only one that is sustainable, but also in how it sees the prospect of ‘energy descent’ as something positive, creative, and exciting not something to be viewed with dread. A life with less energy (not no energy it should be noted) is not viewed as regressive, negative, or something to be resisted, but rather viewed as an opportunity for the creative exploration of new ways of living that try to achieve high quality of life with less energy and resources. In this way, Transition initiatives grounded in encouraging a creative response to limits to growth, peak oil, and climate change offer a way to re-claim *innovation* from an overly narrow and techno-centric interpretation. For the Transition movement perspective, innovation is viewed primarily in social and cultural innovation (Cato and Hillier, 2010), exploring new ways of living and relating to one another (Jackson, 2009a).

TRANSITION TOWNS, THERAPY, AND ADDICTION

This focus within the Transition movement on cultural and psychological dimensions of change, and as sources of resistance to change, is invaluable and places the Transition movement at the forefront of what could be termed the cultural and psychological ‘turn’ in green politics and the politics of unsustainability.¹⁷ In particular, it uses an addiction model to analyse and understand cultural/institutional as well as individual addiction to fossil-based ways of life, and resistance to projected post-oil futures and calls for changes to make this transition happen. Typically the argument claims that the first response people make when informed of peak oil and climate change and the inevitable transition at some near point in the future to a post-oil, transformed economy and society in the twenty-first century is, like an addict being confronted with their addiction, one of denial. Then comes anger, negotiation/compromise, before—if all goes well—acceptance, reflection, change, and action to a post-addiction state. It is in this sense that resilience is not simply about returning a person, community, or system to its pre-

¹⁷ This cultural and psychological turn can be found in explicitly psychological and social psychological work of, inter alia, Tim Jackson on human flourishing within environmental limits and the dynamics of pro-environmental behaviour (2009a), the new economics foundation’s work on behavioural economics (2005), Dobson’s analysis of pro-environmental value-change and behaviour change within conceptions of ‘environmental citizenship’ (2005), to Paterson’s adoption of an explicitly cultural political economy analysis of automobility and car dependency (Paterson, 2007).

change or pre-shock state, but to a new and hopefully ‘better/improved’ state (however understood).

Hopkins points to the stages approach of addiction to explain people’s reaction to peak oil and the iterative process by which they move (usually non-sequentially) through pre-contemplative (awareness of the need for change), contemplation, preparation, action, maintenance of change based on the ‘Stages of Change’ model developed by DiClemente and Prochaska (Hopkins, 2008a: chapter 6), and also related to the Kübler-Ross model of grief and grieving (Kübler-Ross, 2005).¹⁸ Similar psychological stage models can also be found in the work of others such as Edwards and Buzzell who talk of the following stages of what they call ‘The Waking Up Syndrome’: ‘Denial; semi-consciousness; the moment of realization; point of no return; despair, guilt, hopelessness, powerlessness; acceptance, empowerment, action’ (Edwards and Buzzell, 2008).¹⁹ An extremely interesting point made by Edwards and Buzzell is that the despair stage, ‘is similar to the traditional grief process, and indeed, this is a time of grieving. But there is a significant difference between this awakening and the normal experience of grief. Grief that occurs after a loss usually ends with acceptance of what’s been lost and then one adjusts and goes on. *But this is more like the process of accepting a degenerative illness. It’s not a one-time loss one can accommodate and simply move on*’ (Edwards and Buzzell, 2008; emphasis added).

If Edwards and Buzzell are right in their description of the transformation of our existing carbon-fuelled, climate-changing ways of life as like becoming reconciled to a degenerative illness, an on-going (and uneven) *process* of ‘decline’ rather than an identifiable *crisis event*, then this may help explain and understand knee-jerk denial responses. Their analysis may also help us in understanding that *creatively adapting* to and seeking to manage and cope with the inevitable trajectory of this process, is perhaps the most rational course of action to take. This is certainly how Rob Hopkins, founder of the Transition movement views the transition to a post-carbon, sustainable world. For him, this transition is inevitable, therefore there is little point resisting it,

¹⁸ It is interesting here that while the Stages of Change model (unlike the Alcoholics Anonymous 12-step model) allows for a continuum of change (reducing one’s addiction by degrees rather than simply removing it completely or staying addicted) this is not mentioned in the Hopkins book. However, it is clear from the argument made elsewhere in the book and from others in the Transition movement that the post-oil energy economy will and can only be built using oil. This fits with the Stages of Change model in that it explicitly calls for different uses or purposes of the addictive substance (oil) with complete non-use only one, not the only option available.

¹⁹ Others, such as the writer and activist, Alastair McIntosh also propose variations on a ‘stages’ approach. See his outline of ‘A 12 Step Programme’ based on what he calls a ‘cultural psychotherapy’ (McIntosh, 2008: 218–44), the beginning of which is ‘to confess complicity in the problems and get beyond stage one—denial—in the planetary version of the Kübler-Ross grief cycle’ (ibid. 211).

best to adapt and create as many positive opportunities from the transition as possible (Hopkins, 2008b, 2010).

Other culturally and psychologically interesting approaches can be found in those who make the connection between the disorders of eating in modern societies and our ecological crisis based on excessive consumption and the culture of consumerism (Rust, 2008). Drawing on a broadly feminist approach on the relationship between gender, power, food, and eating disorders, Rust states that:

For many years now I have been noticing the parallels between eating problems and our collective desire to consume (I am using ‘consumerism’ here in the widest sense—everything that we take from the earth: food, energy, material objects, and so on). It’s as if we are stuck in a giant eating problem . . . Now we must rein ourselves in, go on a green diet, measure our ecological footprints, count our carbon calories, and watch carefully how much we consume. But this green diet won’t work unless we also address the emotional hunger underneath the drive to consume. (Rust, 2008: 2)²⁰

This therapeutic approach can also be found in popular works such as *Affluenza* both a very popular Public Service Broadcasting series in America and associated book (de Graaf, Wann, and Naylor, 2002) and similarly named works by prominent psychologist Oliver James in the UK (James, 2007) and Clive Hamilton in Australia (Hamilton and Denniss, 2005). These works use psychological theories to demonstrate how consumerism is deliberately mobilized by psychological drivers, needs, triggers, and techniques (for individual self-affirmation, self-esteem, belonging etc.). They also show how, after a threshold, it does not make us happy, and how one needs to understand excessive consumption as something requiring a therapeutic perspective, to focus on its effects on the individual, as well as a political perspective, given consumerism is a collective practice with collective impacts (Keat, 1994).

This therapeutic dimension to Transition initiatives is explicit in a number of ways. *Firstly* there is a recognition of the need for ‘Heart and Soul’ groups to enable people involved in the transition process to have a space to voice concerns and fears and seek help and support from others. Hopkins for example talks of ‘Post-Petroleum Stress Disorder’ (Hopkins, 2008a: 80) when people realize the implications of a post-oil world. This provides a context for individuals ‘to be the change they want to see in the world’, to

²⁰ Others have also invoked (albeit implicitly) the discourse of food/eating and dieting, such as Lovelock and Rapley’s talk of ‘carbon dieting’ (Lovelock and Rapley, 2007: 403), or calls for a Gandhian-inspired ‘Climate Emergency Fast’ (Glick, Locke, and Lunberg, 2009). Rust also notes, in relation to the previous chapter’s discussion of vulnerability, that ‘When a man projects his vulnerability, intuition, and emotional side onto women, he is left in a cut-off autistic world, unable to relate’ (Rust, 2008: 9), thus drawing attention to the gendered construction of vulnerability and resilience.

see that the scale and type of change envisaged requires profound individual psychological preparation in a supportive network. As noted in Hopkins' book 'Transition initiatives are strengthened when they take account of both inner and outer dimensions of change' (Hopkins, 2008a: 89). *Secondly*, and related to the first, is that such interactions between people, often people who don't know one another, but who live in the same area actively (re)creates community and solidarity. *Thirdly*, Transition initiatives also provide people not simply with information and awareness but also practical training and tools for coping with life in the context of energy descent and a post-oil society (through processes like collectively designing an Energy Descent Action Plan, taking part in a 'Skilling up for Powerdown' training, or local businesses engaging in an oil vulnerability auditing process). Fundamentally it helps to instil 'a community-wide belief that we can actually do this' (Hopkins, 2008a: 93), thus addressing the issue of 'surplus powerlessness' discussed earlier.

TRANSITION TOWNS AS RESILIENCE PIONEERS

In this section I wish to draw attention to and dwell on an aspect of the Transition movement related to the notion of those involved in them as pioneers and indeed the movement as a whole being best thought of as a form of pioneering. The word 'pioneer' is derived from the old French *peonier*, meaning 'foot soldier', so it is rather appropriate to view those involved in the Transition movement as 'foot soldiers' for new ways of living (while also touching upon the wartime mobilization narrative with which the Transition movement is sometimes associated). A pioneer is one who goes before others, leads and prepares the way for others to follow, and this is a perfect description of the Transition movement as it pioneers new ways of thinking and living.²¹ As Sharon Astyk notes, 'We talk a good game about wanting a better world for the next generation, but we aren't living our lives as though we love our own kids, much less anyone else's. *It seems to me that the only way to give the next generation a decent shot at life is for those of us who care most about them to take things into our own hands and prepare for the changes ahead*' (Astyk, 2008: 7; emphasis added).

She is explicit in recognizing the pioneering aspects of low-energy and low-carbon living, suggesting that 'instead of everyone picking up and moving to a farm, or building some new society, what we need is a 'Little House in the Suburbs' model—a way of making what we already have usable in a much

²¹ As pioneers the Transition movement prepares rather than determines or dictates the way for others, I do not (as others perhaps might) view this movement as a 'vanguard' in the classic Marxist-Leninist sense.

lower-energy and—emissions world’ (Astyk, 2008: 147).²² Of course there are other groups and movements which can also be viewed as pioneers both now and historically, so it’s not that somehow the Transition movement is unique in being pioneers. In particular, apart from the long-standing commitment to a less consumerist society within Green political parties and elements of the environmental movement, we should also highlight how the voluntary simplicity movement (Alexander, 2011) can also be seen as anticipating aspects of the Transition movement, and has much to contribute to it. However, what I am interested in here is interpreting and understanding Transition initiatives as pioneers and also the extent to which people and communities involved in them identify and see themselves as pioneers.²³

Pioneer is a more preferable term to the more common one of ‘social entrepreneur’ which is another interpretative frame for understanding innovative forms of social mobilization and activity. For example, the Skoll Centre for Social Entrepreneurship in Oxford, states that, ‘Social entrepreneurship can further be defined as any action that displays three key characteristics: sociality, innovation, and *market orientation*’ (Skoll Centre for Social Entrepreneurship, 2009). Equally the descriptive term ‘innovation’, like ‘entrepreneur’ comes with baggage which is biased towards viewing it as a social activity which integrates with or does not challenge conventional economic progress and a ‘business as usual’ and techno-centric approach. At the same time, however, ‘pioneer’ as a concept is not completely free of this conventional economic connotation. Pioneers can also have a more economic/instrumental understanding in the sense of ‘pioneers’ as ‘first movers’ in the emerging markets for green energy, waste, and other forms of ecological infrastructure and production to capture competitive advantage—one of the dominant

²² To a large degree Astyk’s view that a recovery of the ‘expanded household’ will be necessary in the creation of a post-carbon, post-growth economy (as the new site for production, economic activity, sociality, cultural life, as part of a greater community focus) echoes Illich’s analysis of the centrality of the household as the main productive unit in most parts of Europe and America until the early part of the nineteenth century, as well as constituting the basic unit of production in many contemporary non-Western countries (Illich, 1980: 111). The issue here to me seems to be to avoid Astyk’s argument (representative of other green proposals) being seen as a simplistic view that we need a wholesale return to a household-based economy giving it ‘backward-looking’, pre-modern intent. Rather, the real issue is the balance between and integration of such vernacular, core economic forms of production, consumption, and organization and modern institutional (including industrial) forms. This is a creative tension which runs throughout green politics, including the Transition movement. Equally, as Andy Dobson has pointed out there is an unresolved tension (which may be not so creative) between the intense localism of the Transition perspective and non-local demands of cosmopolitanism, global justice, and concern for non-locals in other parts of the world (personal communication).

²³ In particular political and cultural contexts to explicitly view transition towns and the search for resilience in ‘pioneering’ terms might be beneficial in places, such as North America where this allows the transition initiative to attach itself to a longer historical narrative, part of the cultural stories of people and place. In North America pioneering transition initiatives can be, and are, presented as modern forms of ‘storied residence’ re-connecting people and place.

discourses of ‘cleantech’ and the ecological modernization of the economy as in the Green New Deal (Barry, 2009a –GND articles; Mayoh, 2009). And, of course, pioneers share many of the same character traits as entrepreneurs—risk-taking, experimentation, creativity, and as will be outlined below, courage to strike out in new directions, challenge conventional wisdom and structures, and revise previously strongly held or well-established views. But in the sense used here, pioneers are those whose vision and activism are potentially much more radical than the ‘social entrepreneurship’ concept (Parkin, 2010).

As already suggested, one of the many features or traits of a pioneer is courage. In the Transition movement it is clear that it takes courage to accept, embrace and internalize the implications of peak oil and climate change. It also takes courage to criticize the status quo and seek to create change, as the history of struggle for political and social change tells us. A key virtue or character trait of the pioneer is courage and it is, at least in terms of the argument developed here, significant that courage is one of the classical and enduring cardinal virtues. As Van Wensveen points out, ‘Courage is needed to shake familiar, but unsustainable habits and to challenge ecologically harmful practices, in institutions and structures of power. Moreover, courage is needed to venture into the unknown, to make new beginnings. *Without courage, one would not have the ability to persist with good habits such as frugality and temperance in a world that is likely to welcome such habits with mockery and threats*’ (2000: 131; emphasis added). She goes on to suggest that there is a link between courage and vulnerability, in a manner directly compatible with my own account of vulnerability in the previous chapter:

True courage must somehow involve the ability to embrace fear. . . . This again requires a basic personal attitude, namely vulnerability. People who both accept their existential vulnerability and can make themselves vulnerable (i.e. open) will have the ability to experience fear without panic. This will enable them to respond to dangerous situations with maturity and without harmful side effects. . . . Vulnerability in the context of an ecological world view implies the ability to face our creaturely limits, especially death, and to accept our dependence on the web of life. (2000: 138–9)

For Hopkins, this element of personal courage is central to the transition to a low energy, sustainable post-peak oil society. As he puts it, ‘understanding that the scale of this transition requires particular inner resources, not just an abstract intellectual understanding’ (Hopkins, 2008a: 79), and fully acknowledges that to accept the inevitability of the transition to a life beyond cheap oil and a climate-changed world requires considerable courage and fortitude. Holding such a disposition is doubly demanding in the context of the majority of one’s fellow citizens and the dominant culture more generally, either being indifferent, ignorant, or explicitly rejecting any argument about the coming of the end of our current high-energy unsustainable lifestyles and its associated

socio-economic infrastructure. Hence the explicit concern within the Transition movement, as indicated above, with the psychological and emotional dimensions of change, both at the collective and individual levels.

The notion of a pioneer also conveys a sense of identifying and venturing into new horizons of possibility and new frontiers of creativity, whether this is in thinking or doing. For example, Richard Heinberg, one of the main thinkers in the 'peak oil' movement, in suggesting the creation of 'Post-Carbon Outposts' (Heinberg, 2007: 235) implicitly or explicitly evokes the image of the American West as a frontier in which 'empty lands/wilderness' are broken up with scattered outposts of a different type of society. In the Transition movement the 'empty lands/wilderness' is the dominant Western consumer and high-energy way of life (conventional civilization) and the outposts are low/post-carbon experiments and local initiatives. But the analogy still stands whether pioneer outposts are viewed in terms of actual experiments in post-carbon ways of life, or in cultivating modes of thinking and analysis which challenge the dominant cultural and economic narrative. Objectives such as food and energy self-reliance and security, which are central to the Transition vision, resonate with a fairly traditional 'pioneer mentality' of people venturing into new lands and without the infrastructure of society, or a national or globalised economy, and who had to support and fend for themselves. The transition vision of a local economy progressively decoupling from the long supply chains of energy, materials, and commodities of the globalized economy does herald a clearly more self-reliant economic and social vision.²⁴

Transition Towns exemplify the cultivation of new 'sustainability' subjectivities and characters in integrating reflection and action across intellectual, emotional, and practical dimensions of the self. The Transition movement's focus on 'head, hand, and heart' denotes its character-building potentialities. The cultivation of ecological virtue can be measured to the extent it allows the integration of thinking, feeling and action. In the Transition movement case this is geared towards or woven into the recreation of community at its foundation, as the baseline from which collective and local resilience can be

²⁴ But will these outposts be as violent and lawless as the original American ones? (Dobson, personal communication). I think it is fair to say that the positive/upbeat character of the Transition movement is largely dependent upon the assumption that the transition from oil to energy descent will be gradual, and adaptation to climate change impacts will be both gradual and planned. It is thus an optimistic assumption, which means for critics (including friendly critics) that much of its progressive character (support for socio-economic equality, justice, participatory democratic forms, etc.) may be vulnerable to a 'hard' and abrupt rather than 'soft' and gradual transition away from oil and coping with the impacts of climate change (Barry and Quilley, 2009: 5–9). Here arguments about the possible 'decivilizing' impacts (Elias, 2000) of a transition to more local, low-carbon communities need to be taken seriously, which is why hard green thinkers canvassed in the introduction such as Kunstler, Korowicz, Jensen, Kingsnorth, and Hine need to be listened to and not dismissed out of hand as too pessimistic, doom-saying or regressive.

created and sustained. The cultivation of ‘earthiness’ in Van Wensveen’s terminology is most evident in the Transition process, a sense of creating identities linked to the earth (either directly through practices such as food growing or land management or indirectly through heightened awareness of human dependence on the earth) but in a resolutely non-romantic sense. As Van Wensveen points out ‘earthy’ people ‘are not romantic dreamers. They will get their hands dirty to do what needs to be done . . . *And they are not perfectionists either* . . . in order to balance their great love of life with the constant messiness of life, earthy people need a sense of humor’ (2000: 34–5; emphasis added). This non-perfectionist element is worth stressing, since one of the central features of the Transition movement, in part drawing on its permacultural roots or inspiration, is its resolute pragmatism, of not being tied down to ideological issues and political debate but simply ‘getting things done that need doing’.²⁵ This non-perfectionism is also worth stressing since it helps underscore the ‘concrete utopian’ characterization of the Transition movement, in that, in guarding against the ‘perfect becoming the enemy of the good’, the Transition perspective is wary of Duncombe’s uncompromising and unrealizable ‘unconditional impossible demand’ while still remaining a ‘political dream’ (Duncombe, 2007) and form of grounded hope for a realizable but different way of living.

RITUALS OF GRATITUDE AND GENEROSITY

An important aspect of collective resilience and one that the Transition movement articulates is that of ritual. By ritual here I do not necessarily mean religious or spiritual-based ceremonial practices, but rather collective practices that express and through their expression create communal solidarity, a sense of belonging and meaning. These rituals such as harvest time, or around specific daily events, such as eating, or significant episodes within the life of a community, family, and individual, such as birth, marriage/partnership, and death. Rituals bind people together and since strong bonds and the recreation of community are central to resilience, rituals are vital. As Astyk puts it, ‘The fact is that some things will be lost in our new way of life. It is useless to pretend that the transformation to a lower-energy,

²⁵ Sometimes this pragmatism expresses itself as a non-political or even anti-political stance in that some within the Transition movement view ‘political’ and ‘political activism’ as at best pointless and at worse destructive and disruptive of building alliances and coalitions of the willing locally. It has been one of the consistent critiques of the Transition movement that it naively presents a view of social change without involving political struggle, or that small-scale local efforts are sufficient to make the transition to a low energy economy and society. See, for an example of these ‘friendly’ criticisms, Cato and Hillier (2010) and Read (2008).

lower-consumption society will always be painless and easy. Thus, the only possible way we can bring it about is to replace some of the pleasures we are losing with new ones—with *rituals of non-consumption that offer us something to replace what is lost* (Astyk, 2008: 33; emphasis added).

As outlined in the previous chapter, a full acknowledgement of humanity's dependence on the non-human world is, for modern human subjects, living in highly complex, technologically advanced societies, often unsettling and disturbing. It is partly for this reason that green arguments about 'limits to growth', human dependence on the natural world, talk of ecological embeddedness and so on, have fallen on deaf ears. While on the face of it the appropriate attitude or disposition to that which we depend upon and which we have not nor do not create, is gratitude, this disposition towards nature is one largely alien to modern cultures, surviving only in certain religious observance. Significantly however, even in Western cultures there is still some thin and anaemic sense of a grateful attitude towards nature and those whose (gendered) labour has helped produce and prepare the food, in the ritual of saying grace before meals for example. However, this overall lack of gratitude towards and acknowledgement of nature and reproductive labour, is extremely telling, and it is not easy to find spaces in modern living where we so give thanks for what we receive. And in the case of gendered labour the issue is not just about gratitude (which conveys a sense of recognition) but rectifying injustice and exploitation (to convey its value as necessary work that ought to be distributed less unequally).

Part of the importance of gratitude I would suggest has to do with guarding against the temptations of a 'culture of contentment' to use Galbraith's term (Galbraith, 1993), to encourage a collective sense of mindlessness and amnesia about the sources of that contentment. This 'careless' attitude which is a feature of this culture of contentment is, as Galbraith points out, ultimately self-defeating and therefore unsustainable. As he puts it, 'Contentment sets aside, that which in the longer view disturbs contentment, it holds firmly to the thought that the long run may never come' (Galbraith, 1993: 173). Thus rituals and practices of gratitude can be seen as necessary correctives against this amnesia, reminding us in giving thanks for what we have of the fragility (and therefore contingent) of what we have and the necessary care, attentiveness, and labour required for its production and enjoyment. As Onora O'Neill argues, 'Universal indifference to the care and preservation of natural and man-made environments undermines and withers human life and capacities and capabilities for action . . . *lives and cultures will remain vulnerable if they depend on environments which, although not damaged, are also not cherished*' (1996: 203; emphasis added).

Rituals around food seem to be particularly suggestive of ways for people, place, and planet to re-connect, and are also central to the Transition vision. Consider the suggestion made in 2008 by Rajendra Pachauri head of the

Intergovernmental Panel on Climate Change that one of the things people could do to combat climate change would be to eat less red meat and perhaps have a weekly red-meat free day (Pachauri, 2008). Given that meat production and consumption is both extremely energy and water intensive but also accounts for around 20 per cent of global greenhouse gas emissions, not eating meat one day a week is an effective way of individuals 'doing their bit' to combat climate change.

As part of our 'carbon dieting' this weekly ritual has obvious echoes with more religiously based practices such as the Catholic one of not eating meat on Fridays or other religious practices around fasting or limiting one's diet. Or how the Belgium town of Ghent has initiated a 'meat-free' day one day a week as part of the local council's effort to reduce its carbon footprint (Traynor, 2009).²⁶ Within Transition initiatives it is often the food groups and projects that tend to attract the most people and local energies, since food is something we need on a daily basis and both the production, preparation, and consumption of food lend themselves almost naturally to rhythms around which rituals and shared practices can be developed (Swabe, 2008). Similarly, Peter Doran has, using a Foucauldian conception of *askesis*, looked at how 'personal carbon trading' could be viewed as prefigurative practice or 'technology of the self' for positive pro-environmental behaviour for a low-carbon world that also contributes to high quality of life (Doran, 2010). This goal of simultaneously achieving a low-carbon but high well-being socio-economic order will be explored in more detail in chapter 5, as vital for the success of any post-growth economic proposals.

The point of such rituals of thanks and generosity around food is that they stand as occasions to pause and reflect upon our connections with one another and the non-human world. It also evokes a sense of reintroducing 'mindfulness' into these everyday activities, and indeed reintroducing meaning into these practices so that, as Benton points out, proper human food eating is not utilitarian or instrumental but cultural, social, and symbolic (Benton, 1993). As Benton puts it, echoing Levi-Strauss' argument in his book *The Raw and the Cooked*, 'Proper human feeding-activity is symbolically, culturally mediated' (1993: 50). It is not simply about nourishment. It is for this reason that the Transition movement consciously seeks to reconnect people with the land, the soil, the practices of food growing, and the labour that goes into food production, preparation, and consumption. This is another example of the 'de-sequestering' of a key part of daily life which echoes the argument above

²⁶ Ghent has since been joined by six other cities to officially endorse this campaign for the sake of human health, animal welfare, and climate change. Other cities who have endorsed the campaign include Cape Town (South Africa), Hasselt and Mechelen (both in Belgium); Sao Paulo (Brazil); and Bremen (Germany).

and in the last chapter about the dangers of ‘sequestering’ (Giddens, 1991) central aspects of the human condition in modernity.

The Transition movement’s focus on food is also about the (re)creation of a local ‘food culture’ and a fundamental revaluing of food (Sage, 2003, 2011; Pollan, 2007).²⁷ And a part of that recreation is about according more time to food preparation and consumption and having a greater awareness of and connection to where, how, and who has grown and prepared one’s meals. It is at this point that the Transition movement connects with the Slow Food movement and the latter’s concern with reclaiming a conception of food as something beyond ‘fuel for the body’ and of preserving and protecting local distinctiveness and pride in local food cultures from the predations of an industrialized, chemicalized, homogenizing, and mass production food system.

The import of ritual in understanding and coping with climate change has been highlighted by the International Alliance of Religions and Conservation:

Climate change and environment issues are often presented as scary, or at least doom-ridden and gloomy. Yet human psychology does not work well when only told how bad we are. *The need to celebrate in order to appreciate better why we need to care for our planet, is something the faiths understand well and can help the often over-earnest secular groups to appreciate. Understanding the cyclical nature of festivals and lives also assists in helping build a profound environmental awareness into yearly rituals. We can want to protect the world because it is beautiful, not simply because it is useful—and with that as our value, we might perhaps protect it better.* (Alliance of Religions and Conservation 2007)

The notion of following the seasons, of rituals to mark significant times of the year—spring, growing, harvest, light/equinox, and so on—is something that Transition initiatives seek to re-establish. This involves the revaluation of time, work, and play using natural/agricultural conceptions of time against unilinear economic/industrial-capitalist conceptions of ‘clock time’. There is thus an intimate connection within the forms of resilience fostered by the transition process and advocated by the Transition movement and the aims of the ‘Slow Food’ (Petrini, 2001; Petrini and Watson, 2001) and ‘Slow Cities’ movements (Honore, 2004). Not only is life in a post-carbon world a life with less energy, but also a life with less involuntary speed and mobility, with a different and slower pace of life.

An important issue to consider here is the manner in which such rituals evoke a different temporal pace and rhythm which is in direct opposition to the ‘24/7/365’ industrialized version of time in modernity. Whether at the scale of ‘ecological time’ (i.e. the seasons in relation to agriculture, or temporal

²⁷ In this the movement articulates a position which stresses that there is no such thing as a ‘post-agricultural society’.

durations of resource use and re-growth) or ‘biological time’ (i.e. the necessity for periods of daily rest and recovery, or viewed over a life span periods of dependency on others) or ‘political time’ (periods of economically ‘non-productive’ reflection and celebration), this focus on rituals and ceremonials stands (and has always stood, as the work of Mikhail Bakhtin (1984) has demonstrated) in an attitude of resistance to the homogenizing, discipline of administered time organized around efficiency, productivity, and maximization.²⁸ The transgressive and emancipatory and indeed comedic potential of rituals (or parody and self-parody) have also been identified as necessary for the green movement itself by Torgerson (1999: 87). In permacultural and resilience terms, such pauses and periods of non-economic activity (which is not of course to say that ‘work’ as opposed to ‘employment’ is absent from these activities) are forms of ‘slack’ and ‘in-built redundancy’ which are necessary for resilient living and human flourishing in an age of limits.

VIRTUE, CHARACTER, AND NEW SUSTAINABILITY IDENTITIES

One of the implications of the Transition movement is the ‘de-sequestering’ of central aspects of the ‘modern condition’, and the creation of new resilient subjectivities as preconditions for creating new forms of ‘ontological security’. Perhaps, ‘reclaiming’, ‘recovering’, or ‘revealing’ are more accurate and convey the positive and powerful ways in which the focus on the self, and the potential for the (re)creation of new, less consumer-based identities (as well as interests), are part of the Transition promise. And a key feature of these new forms of ontological security is that they are collective in nature. This would seem to be a logical outcome of the pivotal claim of the Transition perspective that at the heart of transition is the re/creating or reviving of community and forms of social solidarity. Ontological security and identities in a post-carbon, post-growth world will clearly be different and found on fundamentally different bases than the ontological security and identities of an affluent, high-carbon society.

As Heinberg puts it, ‘True individual and family security will come only with community solidarity and interdependence. If you live in a community that is weathering the energy downslope well, your personal chances of survival and prospering will be greatly enhanced, regardless of the degree of

²⁸ One could go further here indicating yet another ‘cyclical’ temporal arc in the arguments of some classic republicans (such as Machiavelli, discussed in chapter 7) who held a cyclical-cum-organic view of the life of the republic as something that would grow, mature, die, and then start again.

your personal efforts at stockpiling tools or growing food' (Heinberg, 2007: 234). Hyper-individualism and the extreme forms of atomization witnessed in 'modern' societies are simply unsustainable, unfeasible, and impossible in a carbon-constrained and climate-changed world. One of the clear implications of a post-carbon world is a more communal, collective world, but one that does not necessarily imply threats to individual liberty or cherished ideals of justice and equality, as will be developed later. Nor should this be seen as necessarily regressive and 'backward'. This appeal to social solidarity and community in a non-romantic sense, is particularly important in relation to overcoming the challenge of the transition itself—our collective detoxing from fossil fuels and conventional economic growth. Here the sometimes subtle, sometimes explicit connection between the Transition vision and wartime mobilization, mostly harking back to the Second World War, is as telling as it is widespread within the Transition movement. Witness Lester Brown's claim that, 'The challenge is to build a new economy and to do it at wartime speed before we miss so many of nature's deadlines that the economic system begins to unravel' (Brown 2008: 22).

In his book *Plan B 3.0*, Brown draws extensively on the US experience of the Second World War and how the economy was refashioned and government and citizens mobilized for the shared task of fighting Japan and then Germany. In the same way, it is quite natural that the Transition perspective should gravitate towards the Second World War as the most recent historical example of the type of large-scale collective mobilization needed in order to both manage the transition to a low energy, post-carbon world. At the heart of such analyses is a call for forms of solidarity, common purpose, a sense of a shared societal project and the need to repel a common enemy threatening a valued way of life. And therein lies one of the main differences and challenges facing the modern appeal to that historical experience. The 'enemy' for the Transition process is not some external force, but the very 'way of life' we have come to enjoy and aspire to over the past fifty years or so. So 'we' are 'our' enemy in this regard—or rather the patterned interlocking of dominant institutions and desires within consumer capitalism. Here of course the addiction focus of the Transition perspective does some work in seeing that at root the transition process is a cultural and psychological change, as well as being one based on diagnosing the structural causes of unsustainability and mal-development. A high energy, high consumption way of life, made possible by intensifying processes of economic globalization and resource throughput, is something that is desired by and actively promoted to billions around the world as 'the good life'. And yet it is this very Western, consumerist way of life that needs to be radically transformed to create more resilient economies, communities, and societies.

But it is not simply that we need to examine that way of life, but also the forms of subjectivity and identity that sustain and are sustained by the

practices of that unsustainable way of life. And herein perhaps lies the lessons from Jonathan Lear's analysis from the previous chapter about the coping mechanisms needed to be resilient in the face of potentially radical disruption, to endure, survive, and hopefully flourish. How does a culture or individual 'let go' of a valued way of life for another one? What are the subjectivities called forth by or consistent with the transition vision? What is a 'transitioning' or 'transitioned' subjectivity and identity? It is of course for this very reason that the Transition movement adopts an addiction model to analyse unsustainability in which a key aspect is not to change nature but to change our relationship to nature. In this sense self-mastery can be seen as a key ecological virtue in context of resilience—to see that what needs mastering is not nature or other people, but our relationships to nature and others. As Rachel Carson has noted, 'The human race is challenged more than ever before to demonstrate our mastery—not over nature but of ourselves' (in Black, 2006: 125). These new identities and subjectivities while they cannot be authoritatively prescribed—following the addiction model, these changed identities cannot be imposed but have to be actively, consciously, and most importantly, freely, chosen—are at the same time not infinite in range. After all, and to underscore the innovative and pioneering aspect of the Transition perspective, it is an open-ended experiment and no one size fits all.

There is I think a call for humility within the Transition movement and one that also expresses itself as the need for adopting a more cautious and considered approach to decision-making and action. Here again the permaculture roots of Transition are evident in that the former regards contemplation of an issue as vital in making the right choice and sees deliberation as a necessary prelude to action. This approach is partly related to the self-conscious way in which permaculture thinking views itself as a form of 'design thinking' which necessarily requires forethought, and above all time for creative thinking of how general principles can be applied to specific cases and issues. Humility here is thus connected to contemplation and experimentation, and the latter are connected to a slower pace of decision-making and action and of allowing more time before action. Having more time is one of the key features of what the Transition vision sees as both an inevitable, but also desirable feature of a low energy, resilient, and sustainable way of life. Slower, more contemplative, and humble senses of identity and ways of thinking, are not incompatible with innovation and creativity.

CONCLUSION

This chapter has sought to examine the idea of resilience as a response to vulnerability. With its permaculture roots, from which it gets its understanding

of resilience, the Transition Towns movement can be viewed as forms of ‘concrete utopian’ practices in the sense of being experiments within a self-transforming present as opposed to the creation of some new future based on abstract principles. The Transition focus on what is termed ‘The Great Re-Skilling’ (Hopkins, 2008a) can be directly linked to the point made in this chapter about resilience as a capacity. And as such, that is, a capacity (or a virtue), it can be bolstered and supported (in both the individual and community), or it can be undermined and degraded (or un- or under-cultivated in virtue ethics terms). One of the reasons greens and those involved in the Transition movement suggest our current communities and societies are lacking in resilience is that our globalized, centralized economies and systems of governance and culture have systematically ‘de-skilled’ people and made us unable to meet almost all of our own basic needs. But more importantly it has undermined some of the most important resilience capacities, particularly solidarity and community and a basic belief that communities of people can shape the conditions (socio-ecological and social) for their own flourishing. And as suggested in this chapter one of the key features of a resilient community is both a sense of empowerment coupled with imagination of creative responses to how to achieve high quality of life with low carbon and resource use.

Thus the vulnerability or lack of resilience of our current energy or food system lies not just in the vulnerability of globalized supply chains connecting distance places of production with consumption (vulnerable to geopolitical unrest, terrorist attack, rise in the price and/or availability of oil, natural gas etc.). But also in thereby promoting a division of labour globally which has systematically discouraged people and communities from possessing and practicing various skills and forms of self-provisioning and self-production. A form of ‘learned helplessness’—well documented by pioneers in this area such as Ivan Illich (Illich, 1976, 1980)—can be said to characterize large swathes of Western populations who believe they cannot change their situation, that is, that success or failure nowadays is independent of and outside our own capacities for action.

The Transition vision reverses the ecological and socially dis-embedding and well-being reducing aspects of the division of labour, the hyper-specialization and the progressive de-skilling of individuals and communities in modern societies. The Transition movement’s emphasis on craft, re-skilling, and focus on the ‘head, heart, and hand’ of the human being, without rejecting modernity or modern technologies, open up the possibility that within the Transition process modern work can be rendered more ‘practice like’ in the MacIntyre sense of practice (Breen, 2007: 413). In some respects the Transition movement shares elements of Alastair MacIntyre’s vision, as outlined in the previous chapter, but without the danger of it becoming another anti-modern, romantic, backward-looking social experiment. This is especially so if, as will be suggested in chapter 5 we begin seriously to question the confusion

of formally paid ‘employment’ and ‘work’, including especially reproductive labour.

A central dimension of this ‘concrete utopian’ approach that I detect in the Transition movement lies in the shift from maximizing productivity through efficiency to maximizing adaptive capacity. As Folke et al. point out, ‘*Thus a fundamental challenge is to change perceptions and mind-sets, among actors and across all sectors of society, from the over-riding goal of increasing productive capacity to one of increasing adaptive capacity*, from the view of humanity as independent of nature to one of humanity and nature as co-evolving in a dynamic fashion within the biosphere’ (Folke et al, 2002: 4; emphasis added). In this respect, permaculture insights about deliberately designing redundancy and slack into whatever system you are managing or working on (which may go against the goals of efficiency) are important since it turns out that maximizing adaptive capacity, that is, resilience, is intimately related to having sufficient ‘slack’ and built-in redundancy within the system. Building in slack creates the space, the ‘head room’ for creative adaptive management, thus while ‘redundant’ and ‘suboptimal’ from an orthodox economic view of efficiency (maximizing returns while minimizing resources or inputs), such decisions need to be viewed rather as necessary ‘investments’, required to create resilient, sustainable socio-ecological systems. The dominance of neo-classical economics represents perhaps one of the most deep-rooted obstacles to the transition away from unsustainability—being the source of a narrow focus on efficiency, maximization, and generally undermining the capacity for resilience. Hence the following chapter examines this hegemonic mode both as a maladaptive way of thinking about the economy—which after all is the most significant dimension of our metabolic relationship with the environment—but also as a cultural, ideological, and indeed ‘mythic’ mode of thinking, which enables it to maintain its dominance, crowding out alternatives, despite its evident maladaptiveness.