Individualized responsibility and climate change: 'if climate protection becomes everyone's responsibility, does it end up being no-one's?'[1]

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Abstract

Whereas global compacts, such as the Kyoto Protocol, have yet to consolidate action from governments on climate change, there has been increasing emphasis and acknowledgement of the role of individuals (as citizens and consumers) as contributors to climate change and as responsible agents in mitigating greenhouse gas emissions. Recently, along with the acknowledgement of the threat that anthropogenic climate change presents to the planet, governments and non-government organizations have focused on personal responsibility campaigns targeting individuals and households with a view to stemming the growth of greenhouse gas emissions. The Australian Government, for example, spent $25 million in 2007 on the climate change information campaign targeted to every Australian household, 'Be Climate Clever: "I can do that". Such measures centre on "personal, private-sphere ….. behaviour" (Stern 2005, p. 10786) that focuses on the "choice of goods, services and lifestyles" (WWF-UK 2008: 10) and imply that global greenhouse gas emission reduction targets can be met through the actions of individuals. There is growing concern in some quarters about climate change programs that emphasize individual behaviour change strategies that use "simple and painless steps" (WWF-UK 2008) and "small steps add up" (Accountability and Consumers International 2007) approaches. The emergent fear is that given the urgency of the climate change problem that such approaches will mean important opportunities for citizen-led action will be lost. This paper will explore how notions of individual responsibility have arisen and what the trend towards individualized responsibility may mean for active citizenship on climate change.

Introduction

Concern about human-induced climate change has grown over the last few decades and it is now widely considered to be 'the greatest threat to humanity' (Hansen *et al.* 2008; Hansen 2007; Watkins 2007). Whilst global compacts, such as the Kyoto Protocol (which Australia ratified in 2008), have yet to produce concerted actions from governments on climate change, there is a growing rhetoric concerning the role of individuals (as both citizens and consumers) in contributing to and, thereby, bearing responsibility for, climate change.

[1] The title comes from Bulkeley and Moser 2007, p.8.

Responses to climate change mitigation within Australia are increasingly relying on individual actions and commitments to behaviour change at the personal and household level. The Australian Government further entrained the individual responsibility model through its 2007 $25 million Climate Clever campaign, titled, *Be Climate Clever: "I can do that*" (Daily Telegraph 2007). This is but one example, however, of how people (on a personal or household level) are being called upon to take on the mantle for greenhouse gas abatement (see Accountability and Consumers International 2007; Bickerstaff & Walker 2002, p. 2189).

Furthermore, personal responsibility based climate change programs are not solely government initiated; there is an ever growing range of individual and community based programs designed to assist Australians at a personal and household level to reduce their carbon footprints. WWF's Earth Hour campaign, for example, relies on business and community engagement to undertake climate change action by turning off lights for one hour on one day of the year. News Limited's 1 degree program employs a website (www.1degree.com.au) to encourage individual action on climate change. A more sophisticated approach is typified by the Australian Conservation Foundation (2007) 'Consuming Australia' report which attributes all of the environmental impacts from the production and consumption of goods and services we consume to the level of each Australian household, implying that large scale, complex and "messy" (Garnaut 2008) problems, such as climate change, become solvable through individual consumer choice and action.

Recently, however, it has been proposed that individuals taking responsibility for efforts to reduce carbon dioxide in the atmosphere through the adoption of "simple and painless steps" (WWF-UK 2008), will not create the essential and very substantial reductions needed to avert dangerous climate change (Accountability and Consumers International 2007; WWF-UK 2008). WWF-UK (2008 p. 5) uses the term 'simple and painless steps' to describe approaches that "encourag[e] individuals to adopt simple and painless behavioural changes" with the presumption that this, in turn, will motivate individuals to "engage in more significant changes". Accountability and Consumers International have identified a similar issue in relation to the rapid and profligate rise in consumer-focused climate change abatement programs (2007, p. 41). These programs generally require individuals and households to take "small steps" towards

lower carbon-intensive lifestyles, such as turning off household lights and purchasing energy saving appliances. They argue that a "small steps add up" approach whereby the expectation is that such actions will lead to more meaningful and extensive behaviour change, will fail to make significant impacts against the "scale and urgency" of emerging climate change.

Climate Change and Individual Responsibility

The Intergovernmental Panel on Climate Change's most recent assessment states that the warming of the earth's climate caused by greenhouse gas (GHG) emissions "is unequivocal" (IPCC 2007a, p. 2). There has been a 70% increase in GHG emissions between 1970 and 2004 (IPCC 2007b, p. 3). Observed temperature changes are accelerating increases to global sea levels; causing the melting of glacial ice flows and polar ice sheets; creating changes in the natural cycles of plants and animals; and impacting on the health and welfare of human beings (IPCC 2007a).

Under current mitigation practices and policies, anthropogenic GHG emissions will continue to rise. The IPCC's latest assessment projects an increase of 25-90% between 2000 and 2030 (IPCC 2007a, p. 7). Effectively the current economic, technological and social conditions that underpin energy supply and use globally today create an enormous inertia, resisting effective change.

Prominent climate scientists, such as James Hansen of NASA's Goddard Institute, predict that the current level of greenhouse gases in the Earth's atmosphere already commit the planet to 2 degrees of warming (Hansen *et al.* 2008) - the level considered the cut off for 'dangerous climate change' (see DEFRA 2005) - irrespective of the mitigation measures taken. Recent dramatic changes to late summer sea ice in the Arctic provide evidence that the real changes occurring in the Earth's natural systems are at least at the highest predicted IPCC scenario or beyond (Hansen et al. 2008; WWF 2008). Hansen (2008) describes the current situation as being critically balanced between a 'tipping point' and 'the point of no return' and proposes that the window of opportunity for reducing GHG emissions to a level that would offset catastrophic climate change lies within the next two decades. Hansen et al. (2008) propose that carbon dioxide levels within the atmosphere would need to be reduced to 350 parts per million (ppm) to avoid dangerous climate change which sits well below the IPCC (2007), Stern Review (2007) and Garnaut

Climate Change Review (2008) recommendations of 450 – 550 ppm. Despite the growing evidence that our current carbon-intensive lifestyles place us on a trajectory towards catastrophic climactic change by the end of the 21st century, political reticence towards making deep cuts in GHG emissions remains. Professor Bob Watson, one of Britain's leading scientific advisors, has suggested that people should be prepared to adapt to a 4 degree rise in temperature (Randerson 2008), a level considered by Hansen et al. (2008, p.1), to result in "irreversible catastrophic effects".

So, whilst the dominant contemporary climate change discourse is couched in rationalist scientific and economic terms, policymakers consistently state that any successful GHG emission mitigation strategy will require significant changes in individual lifestyles and behaviours (IPCC 2007b, p.12; see also Stern 2007; Garnaut 2008). Jensen (2009, p.216) argues that "lifestyle" is a "concept … commonly used as something that needs to be changed if we want to achieve sustainable development" but which is rarely concretely defined. For example, whose lifestyles require changing and what aspects of people's lives are considered to make up "lifestyles"? Jensen goes on to propose that problems of a global nature suggest that solutions need to engage at the individual level, so that "a global problem means that every single individual is involved" (2009, p. 217). This implies that every single individual's life must change in some way in order for us to avoid the most severe consequences of global climate change. I understand from Jensen's proposition that everyone on Earth is expected to bear the burden of abating dangerous climate change.

Indeed, social research studies have shown that people want to take pro-environmental action at a personal and household level (Accountability and Consumers International 2007; Accountability and Net Balance Foundation 2008; Lorenzoni & Pidgeon 2006). Concern about climate change is evident in the community and growing and there is a strong desire to make individual contributions to combating climate change (The Climate Institute 2007; Australian Research Group 2006). The 'What Assures Consumers on Climate Change?' reports (Accountability and Consumers International 2007; Accountability and Net Balance Foundation 2008) list a diverse group of mass awareness raising campaigns and 'communities of change' operating in the UK, USA and Australia which focus on individual and household level actions.

Yet this growing sense of urgency surrounding the effects of global warming is failing to translate into an international groundswell of socially and politically engaged public citizens (Norgaard 2009).

Responsibility

To understand the advent of the notion of individual responsibility within contemporary society, and it's more recent association to climate change mitigation, it is necessary to try to unpack its historical and theoretical roots, which I will briefly attempt here.

Responsibility is an expansive concept, not readily defined. It communicates ideas of accountability or blame (Bickerstaff & Walker 2002), duty and dependability, ideas that sit comfortably as broad moral principles for human action. In general, two aspects of responsibility are recognized:

1. Responsibility as it relates to justice and law. This implies duties and obligations and is often expressed as complementary to rights so that where rights exist, responsibilities are created (Caney 2006; Singer 2002, 2006; Bickerstaff & Walker 2002).
2. According to Auhagen and Bierhoff (2000, p.2), responsibility is also a psychological phenomenon which works both at the personal level (as self-control and free will) but also relates at a societal level. Apart from the creation of obligations or duties as described above, it also implies "ethical and moral values or caring" (2000, p. 3).

Responsibility is, therefore, necessarily socially mediated, i.e. as responsibility involves duties, obligations or care there is implied some relationship with 'the other' (Bickerstaff & Walker 2002, p. 2188).

According to Birnbacher, these two constructions of responsibility can be traced historically with the first derived from early Greek philosophy from where it became systematized for legal purposes (2000, p. 9). This "post-responsibility" established responsibility for some act after the fact and is aligned with responsibility as a kind of moral or legal obligation (2000, p. 14). The second, "ante-responsibility", is a more recent philosophical concern, which is "prospective and

future-oriented" (Birnbacher 2000, p.10) and often described as akin to a duty. Responsibilities of this type tend to be "unprescribed", that is, the "exact nature of the act is left unspecified… which leaves room for discretion and choice" (2000, p. 10).

This more recent conception of responsibility, as described by Birnbacher (2000), has much in common with modern social theories of individualization (explored below). "Ante-responsibility" is also a potent concept in relation to individualized responsibility for climate change. The impacts of climate change (as described above) are based on scenarios that predict environmental and social conditions of the future (IPCC climate models predict up to the year 2100) yet according to emerging scientific understanding of climatic change, action to make deep cuts to greenhouse gas emissions needs to be taken now (by, say 2020). An ante-responsibility for climate change would, therefore, place a duty of care on the current generation for averting dangerous climate change with the aim that future generations would benefit from such action.

Further understandings of why contemporary interest focuses on individual responsibility for climate change remain largely under-theorised. Principally two threads of argument can be drawn from the politico-economic and social theory literatures: individual responsibility as an attribute of neoliberalism; and as a process of individualization.

Individual responsibility in contemporary society

The neoliberalist conception of individual responsibility arose in the 1970s and has since been embraced globally (Harvey, 2006). Neoliberalism, as defined by Harvey, "proposes that human well-being can best be advanced by the maximization of entrepreneurial freedoms within an institutional framework characterized by private property rights, individual liberty, free markets and free trade" (2006, p.145). The political economic ideologies of Margaret Thatcher in the UK and Ronald Reagan in the USA, characterized by the dismantling of the social security net and "the passing of all responsibility for their well-being to individuals and their families" (2006, p.151) are commonly quoted exemplars of neoliberalism.

Drawn from the neoliberal, capitalist tradition, individual responsibility now resonates much more widely, becoming a familiar catchcry of politicians, bureaucrats and NGOs, including environmental organizations. Furthermore, calls for individual responsibility are universally appealing – at least within western democratic societies, where examples are rife. Governments increasingly call on their citizens to take greater responsibility across a broad spectrum of societal concerns: whether it is to take charge of one's own obesity, employment and education, safety from crime (O'Malley 2001) and terrorism (Sydney Morning Herald 2008), or harm to the environment.

When Barack Obama called for "individual responsibility and mutual responsibility", I suggest that he was appealing to a sentiment that already resonates deeply, not only with the American public but also the rest of the democratic world. Indeed this supports Harvey's case that "neoliberalism has, in short, become hegemonic as a mode of discourse, and had pervasive effects on ways of thought and political-economic practices to the point where it has become incorporated into the common-sense way we interpret, live in and understand the world" (Harvey 2006, p.145). Individualized responsibility for climate change in a neoliberal interpretation therefore infers that this political ideology now extends into individual lifestyle choices and behaviours as it "connects with much in ordinary moral thinking; and it is intuitively plausible that justice has something to do with people getting what they are responsible for and not benefiting or being burdened by good and bad luck" (Matravers 2007, p.73).

In *Individualization: Plant a Tree, Buy a Bike, Save the World?* Maniates (2002) sets forth the idea that the "individualization of responsibility" threatens to seriously undermine effective action to curtail life-threatening environmental concerns by creating a disjunction between "our morals and our practices" (2002, p.51). He argues that the individualization of responsibility focuses on the person as consumer rather than citizen and that the "ten simple things to save the planet" (2002, p.50) approach positions the individual within the comfort zone of consumerism, diverting people from more important environmental and citizen-led democratic action, and hiding the power disparity between citizens, governments and corporations (2002, pp.57-8). Maniates proposes that the individualization of responsibility depoliticizes environmental degradation as consumer action replaces political action which strives to change the institutions

that “drive pervasive consumerism” (2002, p.51). Maniates considers global negotiations to address environmental problems to represent only the interests of governments and corporations, whilst those same actors suggest that sustainability can be achieved through “private, individual, well-intentioned consumer choice” (2002, p.58). In his view this reveals the power and institutional barriers to achieving change through individual consumption choices, as these choices are “constrained, shaped and framed by institutions and political forces that can be remade only through collective citizen action, as opposed to individual consumer behaviour” (2002, pp.65-6).

If we are to accept Jensen’s (2009) proposition that global issues require every single individual to contribute to a solution, for Maniates this can only be achieved through collective, democratic action.

Individualization, globalization and risk

The risk theorists Bauman, Beck and Giddens, draw on the notion of individualization as a defining feature of postmodern society. According to Beck, the breakdown in social classes; greater competition for jobs; and the collapse of traditional family structures, contribute to the growing liberation of individuals as the agents of their own life courses (Beck 1992, p.88). Individualization for Beck then becomes a “double-edged sword” creating “greater choice and autonomy” but also “the burden of continual decision and responsibility” (Mythen 2004, p.119).

Institutions are also playing a role in establishing greater responsibility for individuals as there are now many more expectations placed by governments on their citizenry to take responsibility for areas which previously would have been more acceptably under state control. This has set in place an acceptance for less state intervention and greater responsibility for individuals on a wide range of social issues, so that: "Many features, functions and activities which were previously assigned to the nation state, the welfare state, hierarchical organization, the nuclear family, the class, the centralized trade union, are now transferred inward and outward: outwards to global or international organizations; inward to the individual" (Beck 2007, p. 682).

The accelerating processes of globalization and technological change are creating the conditions within society that form two intersecting paths. On the one hand, “individualized life paths that are increasingly reliant on individual choice and reflexivity” and on the other, the global distribution of risk (Mythen 2004, p.118).

Individualization, which “is imposed on the individual by modern institutions" (Beck 2007, p.681), shares much with the neoliberalist interpretation provided above, except that it formulates around conditions of risk. So postindustrial society, which held the promise of wealth and wellbeing as a by-product of techno-scientific development, paradoxically has given rise to risks that are pervasive and deadly. These risks are not limited within state borders, are often invisible and can impact across generations. Beck commonly draws on global climate change, nuclear contamination, genetically modified organisms (GMOs) and toxic chemicals as exemplars of such risks.

In response to the ‘risk society’ (Beck 1992) what emerges is “‘organised irresponsibility’ …..[where] there are a diversity of humanly created risks for which people and organizations are certainly ‘responsible’ in a sense that they are its authors but where no one is held specifically accountable” (Giddens 1999, p.9). Thus individualized responsibility shifts from being a reflexive moral imperative to a set of personal practices divorced from their social moorings that neither “sustain [n]or challenge the structuring of criteria for value in society” (Scerri 2009, p.478), “a kind of artificial *ethics-lite*” (2009, p.477).

In many respects Harvey, Maniates and Beck align on contemporary theories of individualized responsibility: in short, each views the processes of neoliberalism as having grown out of globalization and the distribution of risks and responsibilities from the state to individuals as key forces for individualization. I propose however that the risk theorists, exemplified by Beck, extend the understanding of individualized responsibility, one which may go some way to explain why the call for individual responsibility finds few social critics. The seeming paradox of individualization not only creates individual responsibility (for example where the state may withdraw from social interventions) but requires it, as people find themselves set adrift from their traditional supportive social structures. Whereas the neoliberalist critique provides a rather

negative understanding of this individualizing process, for Beck, the removal of societal constrictions opens up new possibilities. As individualization frees agents from structural restraints, so is created the potential for individuals (as social agents) to actively engage with and change the prevailing social structure. So that "structural change forces social actors to become progressively more free from structure" opening the potential for modernization to advance as "these agents must release themselves from structural constraint and actively shape the modernization process" (Lash & Wynne quoted in Beck 1992, p.2).

Beck infers that individualization is a means to greater democratic control and thereby a precursor to a new social order. This account of individualization is positive and affirming, and together with the morally desirable characteristics attributed to responsibility (Auhagen & Bierhoff 2000) may go some way to explain why in principle people find the idea of taking individual responsibility for environmental action appealing.

However critics of Beck, such as Mythen, challenge his normative stance asking that: "we might reasonably request the evidence of a linear link between risk, behavioural change and political activity" (2004, p.46) and suggesting Beck's promise of social transformation is dependent on the "emancipatory capacity which Beck attaches to risk society" which relies "upon the durability of the link between risk consciousness and political action" (2004, p.47). Empirical psychological and sociological evidence of individual attitudes and behaviours towards global climate risk conditions (considered in the following section) suggest that the processes of transformative social change are yet to emerge.

Just how willing and able are individuals to act on climate change?

A considerable body of social research now exists to deepen our understanding of people's willingness to undertake actions to reduce their greenhouse gas emissions. Accountability and Consumers International (2007) surveyed 2,734 people in the US and UK and found that 66% of consumers agreed that individuals need to take responsibility for their contribution to climate change. A more recent survey of 1000 Australians found even higher levels – 81% of Australian consumers agreed that everyone needs to take more responsibility for their personal contribution to global warming (Accountability, Net Balance Foundation and LRQA 2008, p.11). The

frequently reported types of actions taken are: turning off lights and appliances around the home and buying more energy efficient light bulbs and appliances (Accountability and Consumers International 2007, Accountability, Net Balance Foundation and LRQA 2008). Actions requiring greater commitments of time and money, for example, buying green energy for the home or using a carbon calculator to measure a household's greenhouse emissions were the least likely to be adopted (Accountability and Consumers International 2007, Accountability, Net Balance Foundation and LRQA 2008).

In a similar vein, an European study noted that citizens were most likely to state that they had undertaken "passive" actions in relation to the environment that are conducive with the conduct of their daily lives (European Commission 2008: 12) rather than "active" ones: "using their car less (17%) and environmentally sensible consumption in terms of buying environmentally friendly products (17%) or locally produced products (21%). These "active" actions are also issues that worry Europeans the least (European Commission 2008, p.12).

Pidgeon et al. argue that despite the increased interest and concern regarding climate change in the UK it "remains a low priority for most people in relation to other personal and social issues" (2008, p. 73). They note the "discrepancy between individuals' intentions to mitigate and their actual behaviours; while people indicate frequently that they are willing to recycle and save energy in the home, only a minority of people do take measures to reduce their energy consumption for environmental reasons" (2008, p.73).

The Accountability surveys on what assures consumers on climate change (Accountability and Consumers International 2007, for UK and USA and Accountability, Net Balance Foundation and LRQA 2008, for Australia), when mapping level of concern regarding climate change against level of action identified large discrepancies. In the US and UK research 75% stated that they were concerned about global warming "but challenged to see how their action could make a difference" and only 9% indicated both concern and willingness to take action (p. 26). In the Australian research an equal number expressed concern but not willingness to act (75%), whereas a higher number expressed willingness to take action (21%) (p. 20).

This inconsistency between individuals' stated intentions and their actions (the "value-action" gap) has been widely described (Blake 1999; Kollmus & Agyeman 2002; Macnaghten 2003; Darnton 2006; Norgaard 2009). There is a range of barriers proposed that contribute to the gap. One of the most potent, and key to this discussion, is that people feel that they lack the ability or sense of empowerment to undertake actions that will 'make the difference' on climate change. Why individuals are failing to integrate scientific information regarding climate change into effective forms of social action has recently been explored by Norgaard (2009) and Räthzel and Uzzell (2009). They point to people's perception of their fundamental ineffectiveness on global climate change action as they feel less responsible for those matters that are least under their personal control. Räthzel and Uzzell's (2009) research focuses on the spatial biasing of individuals' felt responsibility. In considering environmental degradation on a scale from the local to the global, their research subjects felt most responsible for local issues and least responsible for global ones. Concomitantly they perceived that their local environments suffer the least environmental degradation whilst global environments are the worst impacted. "Ironically**,** then, although people feel that they are responsible for the environment at the local level this is precisely the level at which they perceive minimal problems. The areal level which they perceive has the most serious environmental problems is the areal level about which they feel least personally responsible and powerless to influence or act" (2009, p. 328).

These feelings of powerlessness are further entrained as people realize their inability to effect global change through their individual agency, calling on their governments to act (Bickerstaff & Walker 2002; Macnaghten 2003; Lorenzoni & Pidgeon 2006; Pidgeon et al. 2008; Bickerstaff et al. 2008; Norgaard 2009). However people also understand global degradation as symptomatic of weak political action (Räthzel & Uzzell 2009, p.329), so not only do individuals perceive an unacceptable level of action from governments on climate change mitigation they are also cynical that governments are genuinely serious about climate change as it is understood to be against their economic interests (Darnton 2006, p.24; Accountability and Consumers International 2007).

Therefore, governments and global institutions in demonstrating that they are ill-equipped to deal with complex global problems such as climate change, unveil "the possibility that those political

and economic structures that have been set in place are inadequate to handle the problem" (Norgaard 2009, p.30). The global financial crisis and lack of a global agreement for avoiding catastrophic climate change (which Beck encapsulates within "organized responsibility") support this contention.

These persistent expressions of individuals' subjection on climate change (drawn from the psycho-social evidence) are inconsistent with Beck's supposition that actors are freed through the conditions of the risk society to construct their own life courses, as this presupposes that actors possess the authority within their life realms that allow them to influence and overcome the prevailing cultural and structural conditions (Norgaard 2009, Räthzel & Uzzell 2009).

From small steps to big change?

The evidence provided by psycho-social research supports theories of individualization in postmodern society as individualized responsibility for climate change mitigation now resonates deeply within individuals in Australia, Europe, UK and the USA. Relying on 'simple and painless steps' to deliver the world from catastrophic climate change, however, is a flawed prospect as it is clear that the limited range of "passive" actions people are currently willing to make will fail to bring about the deep cuts in greenhouse gas emissions required (WWF-UK 2008). Moreover faced with a global climate crisis, individual actors' feelings of futility come to the fore. So whilst comfortable in undertaking "personal, private sphere" behaviours to mitigate climate change, actors are (perhaps, understandably) reticent to broaden their spheres of authority further.

Whilst there may be a compelling case for individual responsibility, not the least being the seriousness of the problem at hand, the very significant reductions in greenhouse gases needed, and the willingness of people to play their part, a reliance on personal contributions to greenhouse gas reductions may hinder the development of effective global policy and action whilst diverting public attention from engaging fully in civil society (Bulkeley & Moser 2007; Accountability and Consumers International 2007; Goldspink & Kay 2007; WWF 2008). The public desire for institutional accountability for climate change mitigation (whilst governments meanwhile demand individual responsibility) raises issues for the public of institutional trust,

capability and duty of care (Beck 1992; Bickerstaff & Walker 2002; Bickerstaff et al. 2008; Macnaghten 2003; Pidgeon et al. 2008). It also alerts the individual to the uneven power relationships that operate between the individual and the state and other institutions (Maniates 2002; Bickerstaff et al. 2008; Scerri 2009) as well as people's actions being constrained by the structural components of, for example, energy supply (Wilhite et al. 2000).

Successful social movements need to jointly build on individuals' choice and freewill in order to respond to climate change, as well as deliver the means for linking up personal with societal level action. Current emphasis on individual responsibility is unhelpful in this regard as it fails to provide a useful framework for local/global linkages on complex global risks and downplays the "social and political relations which are the glue that hold together our understanding and actions on the world" (Räthzel & Uzzell 2009, p.328).

Is the paradox that high levels of concern regarding climate change, unmatched by action, symptomatic that the individualization of responsibility is being created without the ability for actors to effectively engage in societal change? Scerri (2009) argues that it is the forces of modernization that have promoted individualism as an essential contemporary societal trait but without the reflexivity required to establish effective forms of collective democratic control. In this assessment people's failure to act as citizens is as hardwired as the conditions that created the desire to act in the first place, deflected in rampant consumerism. So whereas people feel individually responsible for environmental degradation, "personal acts of consumption stand-in for citizen's ethico-political commitments" (2009, p.475). Individuation rather than enhancing agency alerts individuals to their essential ineffectiveness in tackling complex global environmental issues (Pigeon et al. 2008, p.75). In essence atomistic agents are created that lack the efficacy and authority to make change (Macnaghten 2003; Bickerstaff & Walker 2002; Bickerstaff et al. 2008; Lorenzoni and Pidgeon 2006; Norgaard 2009). Norms of individualization in contemporary Western culture "make it difficult to politicize ethical commitments because devaluing links between (private) morality and (collective) reasons for acting" (Scerri 2009, p. 469). A type of "psycho-social dislocation" (Räthzel & Uzzell 2009, p.333) forms under such circumstances rooted in the dichotomies between the individual and the social and the local and the global.

Two potential scenarios are thus exposed: one where an ambivalence to personal action is created, where people "choose not to choose" as they feel disempowered and ineffective in the face of the global climate challenge (Macnaghten 2003, p.77). The other sees actors not only as individuals but also as "the sum of their social relations to others and the environment" (Räthzel & Uzzell 2009, p.328) who seek out social and institutional relationships that can expand their individual authority through collective action. There is a growing range of promising societal projects, such as the Transition Town movement, which can translate "reductionist individualism" into collective alternative low energy futures (Räthzel & Uzzell 2009, p.334). Within Australia the burgeoning of over a hundred local community climate action groups over recent years provides similar optimism that democratic responses to the climate change crisis can transcend the dominant individualism discourse. (See www.climatemovement.org.au for an extensive listing.) As community dissatisfaction grows with continuing international government inaction in the lead up to the Copenhagen conference to negotiate a post Kyoto climate treaty, the emergence of global mobilizing networks that target local-based action, such as 350.org (see www.350.org), provide further indication that perhaps the social transformation that Beck describes is surfacing.

Conclusion

At this juncture of the climate change debate understandings and negotiations over responsibility are becoming critically important – however, there has been little deliberation over how the burdens and responsibilities of global warming mitigation will be shared and linked from personal level action to the global. Several views on individualized responsibility have been put forward here that contribute to this debate. Birnbacher (2000) suggests that individual responsibility exists in the form of a duty of care towards future generations. Could this moral imperative be garnered to overcome political inertia in the face of the impending climate crisis? Neoliberalism has generated rationalist models of individual responsibility towards environmental problems which rely on freedom of choice and freewill and encouraged through consumerism. Whilst such prescriptions are hegemonic in current societal approaches to climate change abatement, serious concerns are now being raised on the ability of individuals as consumers to bring about the significant changes in carbon reduction required. Individualization

arising from globalization and technology-induced risk society opens the possibility for individuals to extend their spheres of authority as social agents through collective action and to re-balance the power inequities evident in current climate change regimes. Each of these nuanced insights into responsibility extend our grasp of how human action may be garnered to abate the worst impacts of global climate change: as moral agents willing to take action now on behalf of future generations; as political agents engaging in citizen rather than consumer-based action; and as social agents seeking to influence and construct alternative social and institutional associations.

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