Characterizing and evaluating rival discourses of the ‘sustainable city’: Towards a politics of pragmatic adversarialism*

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A B S T R A C T
For many, shifting economic and social contexts have created the conditions for a radical reappraisal of the orthodox image of the ‘sustainable city’. However, in assessing such potentialities, there is insufficient knowledge about the way in which local actors construct, live out and are gripped by this signifier. This article responds to this deficit by exploring how key actors engaged in urban development actually interpret the challenges of the ‘sustainable city’. In part, using a Q methodology study in Bristol and Grenoble, we discern and construct three distinctive discourses of the sustainable city, which we name progressive reformism, public localism, and moral stewardship. Our interpretation of the transformation of the ‘sustainable city’ from a relatively fixed idea into a floating signifier, coupled with the practices of local practitioners as policy bricoleurs. We conclude that efforts to develop new visions of ‘sustainable cities’ are best served by fostering an agonistic ethos of ‘pragmatic adversarialism’ amongst strategic leaders and stakeholders, which foregrounds politics and the right to difference.

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The signifier of the ‘sustainable city’ is ‘immediately appealing’ to urban stakeholders, even though its precise practical and political implications continue to be disputed (Boissonade, 2015; Williams, 2010). In practice, it has often been translated into a market-driven orthodoxy of technological innovation and creative managerial thinking, which renders the signifier compatible with those discourses that promote a positive-sum game of environmental protection, social equity and economic growth. It has thus engendered a repoliticization of the notion of the ‘sustainable city’, thus foregrounding more radical, locally organized, forms of economic and social experimentation that foregrounds more radical, locally organized, forms of political economy.

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sustainable urban development. Included in the latter are the transition movement and ‘sharing cities’, which appeal to new forms of solidarity and environmental well-being, as well as human centred practices of economic development (North & Nurse, 2014).

This article offers an assessment of the likelihood of such stabilizing or transformational moments and practices, which ultimately rest upon the way in which local policy makers, businesses and citizens make sense of the ‘sustainable city’, and develop new discourses and strategies in building coalitions for change. However, in assessing such potentialities, the critical problem for us is that we know too little about how local actors construct such understandings (Williams, 2010). We thus describe and evaluate how key actors engaged in urban development, both public and private, voluntary and community, actually interpret the challenges of the sustainable city.

Using documentary analysis, in-depth interviews, and a Q methodology study of local actors in Bristol and Grenoble, we first discern three original and distinctive discourses of the sustainable city. These are (1) progressive reformism, which couples demands for social justice and radical eco-centric reforms; (2) public localism, which argues for strong public sector leadership, local capacity building and citizen mobilisation; and (3) moral stewardship, which foregrounds the rights of future generations and the moral obligation to protect these rights. Our empirical findings challenge previous literatures which are critical of sustainable urbanism (cf. Hodson & Marvin, 2014; Raco & Flint, 2012). We find little supporting evidence for entrepreneurial or radical forms of green localism. But neither do we observe any consistent support for mainstream conceptions of sustainable urban development, which go beyond broad demands for environmental protection and social equity. Instead, we identify a common opposition or indifference to the principal tenets of ecological modernization (and, by extension, entrepreneurialism), which includes a stress on private initiative, market efficiency, technological fixes and design innovation. Such dispositions sit alongside a shared skepticism of local (i.e. ‘autarkic’) self-sufficiency, which emerges from the broad recognition of urban interdependence.

The upshot of our analysis discloses a hotchpotch of ideas, crosscutting contradictions and antagonisms in the field of sustainable urban development that reveal the absence of mobilizing appeals with which to build alternative constructions of the ‘sustainable city’. So, although it is conceivable that the idea functioned as a unifying nodal point before the global financial crisis – what we shall call in our analysis an empty signifier – which enabled the construction of equivalent relations between economic growth, environmental protection and social justice, while excluding more radical eco-egalitarian visions of the city, we show that the ‘sustainable city’ is better understood as a floating signifier that can be articulated by various forces and projects.

Given this characterization and evaluation, our article sets out three fruitful lines of inquiry into how local actors construct visions of the ‘sustainable city’. These concern, firstly, the discursive work of the ‘sustainable city’ as a floating signifier, which is no longer fixed by the dominant discourse of ecological modernization, but is available for other discourses to appropriate and shape. In this more complex and fluid picture, political practices assume greater importance as rival forces seek to articulate and disseminate competing meanings and visions. Secondly, we focus on the role of local practitioners as policy bricoleurs, who strive to build support for their particular pictures of the ‘sustainable city’ by articulating different elements of discourses together (Wilder and Howlett, 2014). Thirdly, and in conclusion, we argue that efforts to develop new visions of ‘sustainable cities’ in such circumstances are best by serving an agonistic ethos of ‘pragmatic adversarialism’, which foregrounds the role of politics and the right to difference in the ‘sustainable city’. A new sensibility of this kind would abandon the pursuit of singular, zero-sum ideals so as to open up a more engaged, though increasingly complex set of negotiations that can capitalize on the lively contestation of rival ideals and discourses.

**Discourse and the ‘sustainable city’: ideology, subjectivity and hegemony**

Our strategy of inquiry starts by discerning and characterizing the most salient discourses that have been elaborated in efforts to construct a vision of the sustainable city, whereupon we seek to assess the subjective grip of one or more of the discourses at play. Yet this approach begs immediate questions about our conceptions of discourse, subjectivity, politics, and the city, which are presupposed in our observations and empirical research. We elaborate some initial concepts with which to fix our ideas and investigations.

The ‘discursive turn’ followed in this article stresses the importance of language, symbols, images, and arguments in the analysis of social practices and processes. In our view, the category of discourse not only includes ‘talk and text’ in context (speeches, rhetoric, arguments, visions, and so forth), but also the wider practices and institutions that are constitutive of social relations. Technically, discourse is best viewed as an articulatory practice which constitutes and organizes social relations (Laclau & Mouffe, 1985, p. 96). Discourse is articulatory because its function is to bind together contingent elements (linguistic and non-linguistic, natural and social) into relational systems, in which the identities of the elements are modified as a result of the articulatory practice. The products of articulatory practices are discursive structures, which are as precarious and incomplete as the elements that they combine.

Discourses are practices in that they are produced by actors, who weld together a series of heterogeneous elements, though the resultant formations also structure actions, social behavior and institutions. In making such claims, we do not regard the ‘sustainable city’ as a material object or referent that somehow exists beyond or before discourse. On the contrary, the ‘sustainable city’ is a signifier that is brought into existence through discursive practices. Yet the emergent discourses are only effective to the extent that subjects identify with them and are then gripped to varying degrees. Here, moreover, it is useful to introduce and distinguish the category of ideological discourse, which we define as a system of representation (words, images and signifiers) whose function is to conceal contingency and difference, or to naturalize relations of domination. In this type of discourse, social subjects are provided with images of fullness and completion, where none exists, and their identifications are rendered oblivious to other possibilities. The core feature of ideological discourse is thus the denial of contestability and plurality in the name of a spurious wholeness or completion.

Politically, discourses are partly constituted in relation to other discourses with which they seek to align or challenge. The creation of a hegemonic discourse is the result of complex struggles in which opposed political forces (‘discourse coalitions’ or ‘hegemonic projects’) each seek to ‘universalize’ their particular storylines and interests. This is accomplished by articulating a common discourse that can win the support of affected parties, while securing the compliance of others. Their hegemonic dominance usually involves the exercise of force and coercion against recalcitrant elements, though this may (or may not) be normatively undesirable.

A key condition of this approach is that all such elements are...
endless theoretical dispute and contestation (see Scott and Storper, 2000). The lives of subjects, as well as things and places. Moreover, what holds in the present and the past are the ways in which societies or ages construct a particular identity, which makes them the signifiers of the city. The definition of the urban has, of course, been the focus of endless theoretical dispute and contestation (see Scott and Storper, 2015). Our focus in this article is on the particular images or visions of the ‘sustainable city’ in Bristol and Grenoble, which are constructed in rival discourses, and which may or may not grip the subjects to which they are addressed. Thinkers as different as Claude Lefort, Alisdair MacIntyre and Charles Taylor have stressed the ways in which societies or ages construct a particular ‘self-image’ or ‘social imaginary’ through which people can envisage their social existence, organize their social relations, and endeavour to arrange the lives of subjects, as well as things and places. Moreover, what holds for social orders and epochs more generally also applies to cities (cf. Castells, 1983).

So it is mainly at this level of analysis that our intervention operates: we bracket out our thoughts and presuppositions about the nature of the city itself, while accepting that at the discursive level, and especially with respect to the latter’s symbolic dimension, such urban spaces do form legitimate objects of inquiry. Images or pictures of the city get articulated in discourses, while ongoing hegemonic practices seek to translate such visions into meaningful policies and urban forms. We now turn to questions of research design, where we begin by tracing the discursive terrain of the sustainable city before turning to questions of comparative urbanism and our use of Q methodology.

**Research design**

The discursive terrain of sustainable development is commonly located between two dominant poles: a ‘radical’ or ‘ecocentric’ discourse, and a ‘technocentric’ or ‘reformist’ orthodox discourse (Dryzek, 1997; O’Riordan, 1989). Radical discourses advocate the displacement of the anthropocentric and exploitative logics of neoliberalism, foregrounding the absolute environmental limits on human progress, and the rights of the contemporary poor, future generations and non-human species. Radical discourses place significant emphasis on local action. The ‘regenerative city’ ideal, for example, posits the notion of the city as an autonomous system, which is predicated on the internalization of economic activity, while minimizing the city’s dependency on external resource inputs and waste disposal (Girardet, 1999). The ‘progressive climate urbanism’ advocated by the transition movement posits the inevitable demise of the integrated global economy and its associated carbon dependent, consumer lifestyles. Instead, it proposes a ‘utopian’ localist alternative based on social inclusion and sharing, as well as renewable energy, local food, and low carbon living (North & Longhurst, 2013). In emphasizing moral persuasion rather than conflict, it posits a localist response to global ecological crisis without addressing its root causes embedded in capitalist development (Seyfang & Haxeltine, 2012).

In contrast, orthodox discourses advocate incremental reform of the socio-economic paradigm, assuming the possibility of establishing an equilibrium between environmental protection, economic development and social equity. Ecological modernists typically seek to accord monetary value to natural resources, while developing profitable investment opportunities and efficiency savings for businesses and consumers (MoI, 1995). Design-oriented approaches to sustainable urban development are prioritized. The ‘compact’ or ‘intense’ city model, for example, advocates resource efficient high residential density and mixed-use development to counter wasteful urban sprawl and dependency on the private car (Jenks, Burton, & Williams, 1996).

Fundamental to the orthodox discourse is an assertion that environmental problems can be resolved through continued economic growth, facilitated by the substitution of natural resources for human capital (i.e. technological innovation). The latter is epitomized by the ubiquitous but elusive ‘smart city’ ideal. This posits the use of digitally enabled, networked infrastructure to achieve efficient resource consumption and inclusive governance. In this way, green growth can be realized. In practice, however, ‘smart city’ governance has been populated by a narrow range of (mostly corporate) stakeholders and is focused on ‘market making’ activities, rather than the environmental and social domains (Luque-Ayala & Marvin, 2015).

**Comparing visions of ‘sustainable cities’**

In keeping with our recognition of the discursive construction of urban spaces, and our exploration of the ‘sustainable city’ as a signifier or social imaginary, our research aligns itself with recent calls in comparative urbanism to explore the ‘imaginative affiliations’ that bring cities into ‘new array[s] of spatial configurations’ (Robinson, 2011, p. 16). We thus question dominant predilections that take the ‘city’ as an unproblematic starting point for comparison. Rather, we adopt as our unit of analysis the signifier of the ‘sustainable city’, and its instantiation in different discourses, where we characterize it as one of the salient ‘circulations’ (Robinson, 2011) or ‘policy waves’ (Freeman, 2012) that structure the contemporary terrain of public argumentation in urban policy. We thus deploy the logic of comparison as a strategy (McFarlane, 2010) to trace the multiple articulations of the ‘sustainable city’ across different urban spaces. In so doing, we seek to evaluate how these discursive articulations open or close possibilities to reconstitute urban regimes (cf. Ward, 2006, p. 71).

In advancing such claims, we argue that the terrain of public argumentation around the ‘sustainable city’ is framed by a few influential models which produce a relatively standardized menu of actors, ideas, terms and techniques. In turn, these framings are reproduced by transnational city networks, European Union directives, business service providers, planning consultations, and education providers (Harris & Moore, 2015, p. 107). Such spaces of circulation, as Robinson (2011, p. 15) acknowledges, are uneven, ‘punctuated’ by what she calls ‘nodal points’, which may take the...
form of ‘places that might assume some coordinating function in relation to particular circuits’ of knowledge dissemination and exchange. Here we judge the urban regimes of Bristol and Grenoble to represent such nodal points in the circulation of the signifier of the ‘sustainable city’ and its various discursive articulations. We thus view these two regimes not as ‘critical cases’ through which to generate universal explanations or predictions, but as exemplary sites through which to explore the discursive work of the ‘sustainable city’.

Bristol and Grenoble

Bristol and Grenoble have positioned themselves as exemplars of the ‘sustainable city’ within transnational urban networks. In 2013 Bristol was awarded the title of European Green Capital 2015. Its bid, with its aspiration to establish Bristol as a ‘low carbon city with a high quality of life’, advanced the ‘Bristol Method’: a knowledge transfer programme designed to enable other European cities to understand and apply lessons from Bristol in respect of carbon control, local food production, renewable energy, and partnership working. Equally, Grenoble has promoted innovative urban pilot projects, which typically advance social and land-use mix and new technologies in housing. The Caserne de Bonne Eco-Quartier, championed by Green Deputy Mayor Pierre Kermen, and part funded by the European Concerto programme, was awarded in 2009 the Grand Prix National des Eco-Quartiers. Its Eco-Cité project, one of only 13 supported by the French government, redevelops its GIANT nanotechnology campus, thereby encouraging land use and social mix and improving transport networks, public space provision and riverside regeneration (Novarina & Seigenuret, 2013).

This characterisation of Bristol and Grenoble as exemplary nodal points in a wider global constellation does not negate the specificity of the conditions that constitute local urban regimes in each city. Bristol and Grenoble are two comparably prosperous (but polarised) cities, with high value-added economies (Lawton Smith, 2003; Tallon, 2007). Bristol’s city politics is traditionally understood as a form of ‘cliques in concert’ pluralism, with frequent changes of political control, and mutual suspicion between the council, the private sector and neighbouring authorities (Stewart, 2000). The city also has an established tradition of environmental activism dating from the opposition of community groups to ‘modernist’ planning in the 1960s and support for ‘grass roots’ recycling, local food, cycling and alternative energy projects (Brownlee, 2011). The Bristol Green Capital Partnership, launched in 2007, incorporated public, private and civil society representatives and commissioned noteworthy community-led projects, including the Bristol Pound (local currency) and influential reports on peak oil and food resilience.

In contrast, Grenoble has witnessed a stable and dominant growth regime, based on university and business networks and the promotion of the city as an international scientific technopolis and pioneering green city. Its dynamic ‘ecosystem of innovation’ economy was built on energy (hydroelectric and nuclear) and latterly nanotechnology. Historically, this regime was led not by political elites, but by key scientific stakeholders, techniciens entrepreneurs. Post-war growth in Grenoble, underwritten by the French State, was thus based on the relations between local academics and the elite Grandes Ecoles and funding Ministries in Paris, effectively bypassing local and elected ‘elites’. But, in the past decade, there has been increasing intertwining of local elites, with techniciens entrepreneurs increasingly seeking elected office (Novarina & Seigenuret, 2013).

Q and other methodologies

We deployed Q methodology as a means to investigate the grip of the ‘sustainable city’ across Bristol and Grenoble. Q methodology involves a selected group of subjects sorting a set of statements (the ‘Q sample’) that represent the breadth of debate on an issue (the ‘concourse’) into a distribution of preferences (the ‘Q sort’). The Q sorts reveal the individual subjective meanings participants give to the statements. Statistically significant factors may then be derived to identify collective viewpoint spaces (Brown, 1980). Q methodology is thus specifically designed to draw out the ‘high level contours of a debate’ and how it ‘is ordered’ (Skelcher, Sullivan, & Jeffares, 2013, p. 99), assuming that there are a limited number of viewpoints on any given issue. In addition to these quantitative underpinnings, Q methodology relies heavily on the situated judgements and interpretations of researchers (Van Exel & de Graaf, 2005). Problem-definition, the mapping of the concourse, and the identification and naming of different viewpoint spaces, are all constitutive exercises that form the object of research.

We mapped the concourse of debate initially through a systematic review of academic literature that had provided taxonomies of existing discourses of both sustainable development and sustainable cities. For example, O’Riordan (1989); Hopwood, Mellor, & O’Brien (2005; Haughton, 1997, 1999). We then examined key policy guidance and briefings on the model of the ‘sustainable city’ published by the European Union, British and French governments, local authorities, partnerships, business networks and community groups in Bristol and Grenoble. Our approach thus replicated that taken by Durning and Osuna (1994, cited in Skelcher et al., 2013, p. 99–100) in drawing statements, including direct quotations from existing literature rather than interviews.

A ‘long list’ of some 150 initial statements was taken directly from texts and their source text was anonymised. We reduced the number of statements to 36 using a sampling grid (Dryzek & Berejikian, 1993) to bring together a representative sample located along the radical/ecocentric to technocratic/reformist continuum. The grid offered different interpretations of sustainable development and the ‘sustainable city’, the drivers of change and views of crisis, and the appropriateness of environmental policy responses. The statements were translated and discussed within the research team to account as far as possible for the different rhetoric of French and English planning practices. This process of translation, as Fall (2014) acknowledges, was a political and partial practice, involving dialogue and judgement as to the ‘histories’ of particular signifiers in shifting contexts and comparative styles of argumentation. These judgements informed the decision to reword certain statements and deliver the Q sorts through semi-structured interviews (A list of the 36 statements and factor scores is provided in Appendix 1.)

The Q sorts were undertaken through 36 face-to-face interviews, evenly distributed between Bristol and Grenoble (one Q sort was rejected due to reporting omissions). We selected participants in the study from comparable networks of local actors: planners, public managers, politicians, business leaders and community activists. In making such selections, we purposively engaged with the voices of alternative activist and public knowledges that can be overlooked in the production of urban imaginaries (McFarlane, 2010, p. 727). Equally, we selected participants who we judged were likely to express pivotal viewpoints, while rejecting any selection based purely on narrow demographic qualities (Watts & Stenner, 2005, p. 75). Here the explicit focus of Q methodology should be acknowledged. Q methodology does not expose individuals’ own discourses or voices. It explores shared
Interviews lasted between 45 and 90 min and were carried out in English or French. Participants were asked to order the 36 statements, on an upturned pyramid distribution grid, which offered levels of agreement or disagreement on a Likert scale. Importantly, this is not a ‘passive’ exercise, but a moment in which ‘subjectivity can be actively expressed’ (Watts & Sterner, 2005, p. 69). Participants were asked to clarify the meanings that they attributed to statements, and to explain their rationale for the positioning of statements, especially those with which they ‘most strongly’ or ‘least’ agreed. These clarifications were recorded in the notes of the interviewers and translated by the research team. The interviews were, thus, crucial in contextualising and detecting the local situational differences articulated by the participants.

We undertook a ‘by-person’ factor analysis of the distribution of preferences of individuals collected through the Q sorts as part of a process of generating our different discourses. This involved a principal components analysis using PQ method software, which pre-flagged participants loading 0.40 or above, as part of a varimax rotation of two to five factors. We chose a three factor solution having considered the broad distribution of Q sorts loading significantly on the three factors, the number loading on one or more factor, and the correlations between factors and their explained variance (Skelcher et al., 2013). Taken together, the three factors accounted for 48 per cent of the study variance. In the following section, we develop the rhetoric, arguments, rationales and demands associated with each of the three discourses we identified.

### Three discursive articulations of the ‘sustainable city’

#### Discourse one: progressive reformism (PR)

Progressive reformism combines narratives of social justice with demands for radical eco-centric reform. It strongly endorses claims that the human race is seeking to live beyond the capacity of the Earth (s15) and that the status quo is not sustainable given the imperative to mitigate and adapt to climate change (s10). The root causes of these challenges arise from the exploitation, in contemporary economies and societies, of the majority of people and the environment by a minority (s20). Progressive reformism thus advocates that the sustainable development of cities requires, not merely reducing detrimental human behaviour towards the environment, but also a deeper transformation of the systems that generate such practices (s36). In this discourse, the ‘sustainable city’ rests on a change from anthropocentric growth to an eco-centric form of development. It thus requires a radical break from development in which humans exercise a command and control relationship with the environment towards a more balanced coexistence (s28).

It follows that the discourse of progressive reformism deems inequality to be incompatible with visions of a ‘sustainable city’ because it erodes the acceptance of mutual obligations and entitlements of different social groups (s12). Such rights are seen to extend to future generations and to non-human species (s4). These commitments inform broader strategic considerations of coalition building, with appeals to social justice necessarily going hand-in-hand with, if not over-riding, those of environmental protection. Typically, one individual who identified with the discourse of progressive reformism drew attention to the tactical importance of foregrounding demands for social justice in order to mobilise broader support for the model of the ‘sustainable city’, arguing that ‘the environmental dimension of sustainable development has no purchase in poor areas, social justice has strong purchase. You have to sell the city as a just city first’ (Regeneration manager). Similarly, another interviewee voiced the critical proposition within progressive reformism that social inequalities worked against support for sustainable urban development, claiming that ‘[poor] communities don’t get this stuff. […] They want to support the green agenda but they can’t. People can only do so much. Resources don’t help them to play the game […]’ (Community worker).

Not surprisingly, progressive reformism challenges technocentric and ecological modernization narratives of environmental policy. Proponents of this discourse express doubts about the potential value of business, private initiative, and measures to improve market efficiency (s5, s33). They also question the value of technological solutions (s6), efficiency savings and profitable investment opportunities for business and consumers (s29). Typically, one interviewee, who loaded heavily on the discourse of progressive reformism, concluded that ‘the market is poorly structured and regulated, I agree. However, it is not just this, but the basic logic of the market. Sustainable, accountable forms of capitalism probably don’t exist’ (Regeneration manager). These sentiments were echoed by a local policy advisor who, reproducing the rhetoric of progressive reformism, added: ‘I do not believe that private initiative is the motor of sustainable development … it is the motor of wealth’ (Energy and climate change policy advisor). Indeed, the discourse of progressive reformism is skeptical that economic growth is necessary both to make demands for the ‘sustainable city’ politically acceptable and to enable the distribution of wealth (s9).

#### Discourse two: public localism (PL)

Public localism is characterized by its beliefs in strong, clear public sector leadership, which is underpinned by local capacity building to enable citizens to mobilize in response to global challenges (s7; s8). It firmly opposes claims that people have no control over their lives (s16). One business advisor who articulated the rhetoric of public localism thus underlined the strategic significance of public leadership, when he argued that ‘with strong leadership, the others [local stakeholders] would fall into line’ (Business advisor 1). However, subscribers to the discourse of public localism also bemoan the ‘inconsistencies’ of local political leadership. For example one local authority manager who reproduced public localist appeals, argued that ‘we find it hard to build institutional arrangements around broad communities. There are issues of territory and precedence: “I was here first”’. These inconsistencies of political leadership are tied to the difficulties of forging broad citizen coalitions that address universal rather than particularistic demands. The same official thus claimed that ‘the aim is to create a broad tent. Lots of people are into specific issues. They put all their energy into one sphere because it has natural affinity for them. How do you eat an elephant? You start with a leg’ (Local authority manager 2).

Against this background, advocates of public localism call for the reform of the institutions that shape human behaviour (s36). Indeed, one voice of public localism commented that ‘changing behaviour is the key, changing habits reinvents systems’ (Local planner 1). This prioritisation of behaviour change is deployed in part to criticise technological fixes to environmental challenges, with such claims being derided, as in the words of one local official who spoke of the ‘change the light bulbs and it will be fine’ syndrome (Local authority manager 2). However, public localism rejects the notion of fundamental societal change, thus refuting...
claims that humans are attempting to live beyond the resource capacity of the Earth (s15) and opposing the belief that the economy and society are based on forms of exploitation emanating from neoliberalism (s20, s19). Nonetheless, this discourse incorporates certain arguments associated with ecological modernization, and in doing advances the prospect of a ‘sustainable city’ based on renewable and equitably distributed forms of growth, while emphasizing the potential synergy, as opposed to conflict, between economic growth and environmental safekeeping (s1). As one respondent who loaded heavily on this discourse affirmed, ‘the system is not consciously exploitative. Some parties have values beyond profit, and do not act in a way that leaves a disaster’ (Business advisor 1).

In fact, public localism advocates a broad approach to urban change (s26), which endorses compact city designs associated with functional and social mix (s2), while defending the optimal use of local resources and efficient waste systems (s27). It challenges the effectiveness of markets as drivers of sustainability (s5), as well as the reliance on technological fixes to deliver sustainable change (s6). However, it also proposes that the limitations caused by these approaches can be overcome through public leadership and effective regulation. As one business advisor put it, ‘if they [local authorities] set the direction, we might not agree but at least we know where we’re going. Business wants a stable environment that sets the parameters in which they work’ (Business advisor 1). Importantly, public localism thus privileges the demand for creative thinking and cross-cutting or collaborative solutions to bring the ‘sustainable city’ into being (s18), betraying a certain modernist view which rests on the capability of humans to dominate nature (although this creativity is to be found in local democratic renewal and collaboration between state and civil society). Indeed, one local official repeated this faith in collaborative responses, when she argued that the construction of the ‘sustainable city’ requires a ‘weaving’ together of elements to create new partnerships and collaborations, suggesting that ‘if it is just economic, we forget the social […] it’s not just technology either’ (University manager 1).

**Discourse three: moral stewardship (MS)**

Moral stewardship accentuates the obligation of the current generation to protect the planet, and replenish diminished ecosystems. This duty is allied to a view of urban futures that favours sustainable and equitably distributed growth (s25), that is, it advocates a form of development that recognises the interests of the present day poor, future society and non-human species (s4). Moral stewardship concedes that the status quo is unsustainable given the need to mitigate and adapt to climate change (s10) and acknowledges that humans are attempting to live beyond the carrying capacity of the Earth (s15). However, and crucially, it does not couple such responsibilities with a strong commitment to social justice and radical systemic reform (s12). One business advisor, who typically articulated these latter claims, derided what were termed to be ‘water melon greens’ or ‘those that are green on the outside and red on the inside’, adding that ‘this is vexing; that environmental activism tends to be inextricably linked to very left leaning people that are easy to dismiss. It is a tragedy for the planet that its custodianship is in the hands of lazy hippies’ (Business advisor 3).

Moral stewardship denies systemic causes of degradation linked to the exploitative tendencies of market capitalism, (s19, s20). As one planner identified with moral stewardship asserted: ‘the reality is that, financially, you have to make things stack up. We need real world stuff. […] I’m looking for a sustainable city that is feasible’ (Local planner 2). Another business advisor elaborated the appeals of moral stewardship when he stated that ‘it doesn’t matter if you have all the money in the world if you can’t eat but you do need profit to function. We can’t all live in yurts’ (Business advisor 4). Nonetheless, the discourse of moral stewardships takes a critical stance towards private enterprise and the free market by rejecting the claim that business, private initiative, and measures to improve market efficiency are the drivers of sustainability (s5). At the same time, it questions the need for local mobilization and democratic renewal (s32). Indeed, it rejects the demands for radical moves away from anthropocentric forms of development towards more eco-centric forms (s28). As one public official, who is best characterized as a proponent of moral stewardship, put it, ‘the city will never live in harmony. We have to control nature. That’s what farming is. Humans, by definition, dictate and control nature; trees, weeds, etc.’ (Business advisor 2).

Yet, such commitments do not go hand-in-hand with support for technological solutions. One actor who epitomized the rhetoric of moral stewardship pointed out that in terms of technological solutions, ‘history tells us we are very poor at picking winners’ (University manager 2). In responding to the presumed challenges and associations of the ‘sustainable city’, moral stewardship thus privileges individual and collective agency and responsibility. It strongly refutes the proposition that individuals have little control over their lives and resource use, challenging the inevitability of inequality and environmental degradation (s16). Echoing such claims, one actor was at pains to point out that ‘no man is an island but it is our responsibility. Many things are within our gift but there is a tendency to point the finger elsewhere. We need to take responsibility ourselves’ (University manager 2). Indeed, moral stewardship argues that sustainable development requires the identification of windows of opportunity to advance collaborative innovation that builds upon the co-existence of different social, political and economic interests (s34). One planner who identified strongly with this discourse, drew attention to the significance of cognition and learning, claiming that ‘change will happen if people actually believe in something, rather than simply being obliged’ (Local planner 3). Moral stewardship thus rejects prioritising any single approach, suggesting as one activist commented that ‘at the stage that we are in, everything is essential’ (Community activist).

**The three discourses compared**

The three original discourses that we have discerned – progressive reformism, public localism and moral stewardship – are riven by multiple cross-cutting cleavages. Each expresses different constructs of the very principles of the ‘sustainable city’, attributing differential weightings to human well-being and environmental protection, and the extent of societal reform and realignment of human-nature relations deemed necessary to achieve change (cf. Hopwood et al., 2005). For example, public localism and moral stewardship endorse the core proposition of the sustainable urban development orthodoxy, which suggests that there is a potentially positive-sum accommodation between economic growth, environmental protection and social justice, although, critically, only as long as growth is framed as ‘environmentally sustainable, well balanced and resilient’ (s25; see also s1). Progressive reformism, on the other hand, firmly rejects such claims. Conversely, the discourses of progressive reformism and moral stewardship both recognize the existence of environmental limits to growth, accepting that the status quo is untenable and that humans are living beyond the capacity of the Earth (s10, s15). Public localism, however, does not fully accept the first of these fundamental
propositions and firmly rejects the second.

There was no evidence of a common recognition of an a priori relationship between environmental and social justice. Proponents of progressive reformism stand apart from public localists and moral stewards in their conceptualization of the ‘sustainable city’ in terms of demands for social justice (s12). This appeal cannot be divorced from their condemnation of the exploitative nature of neo-liberalism (s20). Further cleavages were also evident about the degree to which the three discourses privilege demands for fundamental ‘system’ or incremental change, and the capacity of individuals to effect such change. The anti-system agenda of progressive reformism is rejected by public localism and moral stewardship. The latter two discourses oppose the claim that people have no control over their lives (s16), although the discourse of public localism remains unique in its strong support for municipal leadership (s7).

In contrast to these competing understandings of sustainable development, each discourse displayed a marked skepticism towards the central tenets of ecological modernization, technological fixes and market friendly reform (s6; s5). All three firmly rejected the proposition that technological innovation represents the most effective means for achieving sustainable urban development (s6). Design innovation also exerted limited purchase on participants. Surprisingly, the compact city ideal received only moderate support within the discourse of public localism, even less within the rhetorical appeals of progressive reformism, and was rejected by the advocates of moral stewardship (s2; s30).

Crucially, all discourses were opposed or indifferent to the pursuit of business-friendly reforms (s29, s33). Indeed, they unanimously rejected the propositions that ‘business, private initiative and market efficiency are the drivers of sustainability’ (s5) and that economic growth constitutes a prerequisite for securing the political and public acceptability of sustainable development (s9). They remained indifferent to – or, in the case of public localism, opposed to – the propositions that ideas of environmental ownership and pricing were underdeveloped, and markets poorly constructed (s13, s17). Typically, practitioners who identified heavily with the discourse of progressive reformism explained their opposition to markets by arguing that private sector initiatives were not ‘the motor of sustainable development, but the motor of wealth creation [such that] the market does not always work in the general interest’.

The three discourses also exhibit little endorsement of the principles of radical green localism. There was broad support for the reform of the institutional systems that shape social behaviour (s36). And yet, whereas progressive reformism and public localism supported local sourcing of resources and maximizing waste efficiency (s27), and supporters of public localism strongly advocate citizen mobilization (s8), the notion of the ‘sustainable city’ as a self-sufficient system was broadly dismissed as an autarkic ‘blueprint’ (s3). Recognizing the interdependence of cities, one participant aptly brought out the limited appeal of inward-looking interpretations of the ‘sustainable city’: ‘We can’t all be Freiburg. We all have different contexts. We all have to be interdependent. Independence is a completely hopeless plan for individual cities’ (Local planner 2). Another (Local planner 4) simply dismissed localism with the remark: ‘We are still going to eat bananas’.

In short, each discourse crystallizes a distinctive problematication of the ‘sustainable city’. But, critically, we find no consensus statements across the discourses, which might act as mobilizing appeals that could potentially forge shared demands and build new visions of the ‘sustainable city’. What does this mean for the future of the ‘sustainable city’ and its multiple connotations?

The future of the discourse of the ‘sustainable city’

The rhetorical power of the ‘sustainable city’, as we set out in our introduction, has been increasingly called into question. Commentators like While, Jonas & Gibbs (2010) and Beal (2015), for example, speak of its decline as a mobilizing narrative in both France and the UK even before the 2008 financial crisis, and its displacement by state imposed and technocratic climate change regimes that are underpinned by a logic of carbon control. Taking into account the fallout following the 2008 financial crisis, Hudson and Marvin (2014) argue that policy has entered into an ‘after sustainable cities’ era, in which beliefs about the potential to balance economic, social and environmental demands have faltered. In this scenario, concerns about the future of the environment or social justice are subordinate to a competitive, growth-oriented urban entrepreneurialism (see also Raco & Flint, 2012). Environmental planning thus seeks to underpin competitiveness by ensuring continued access to the natural assets necessary for growth (e.g. energy, water), while building ‘resilience’ to natural hazards (e.g. drought, flooding) (Hodson & Marvin, 2014).

Others argue that austerity governance may well have repoliticized the ‘sustainable city’, challenging its post-political endorsement of consensus governance in favour of radical eco-egalitarian counter-logics, such as the green neo-localism epitomised by progressive climate urbanism and the transition movement (North & Nurse, 2014). For his part, Whitehead (2012) delineates three potential avenues for urban regimes ‘after sustainable cities’. These are a type of hyper-liberalism, which privileges growth and competitiveness at the expense of other priorities; transition movements and neocolisations, which build resilience and generate local responses to growing environmental risks; and new forms of municipal pragmatism, which replace aspirations for ‘balance’ with realpolitik policy ‘trade-offs’ or a ‘win-lose-lose’ scenario in which negative outcomes in one space can be substituted for positive outcomes in another.

Our research counters overly pessimistic interpretations of the future articulations and resonances of the ‘sustainable city’. Participants continued to prioritise environmental protection and to acknowledge intra- and inter-generational demands. Discourses of economic competition and markets failed to resonate across the cohort of actors engaged in the study. Indeed, the antipathy towards economic and market-oriented measures was notable across all three discourses, with little evidence of increasing investment by practitioners in visions of entrepreneurialism. By the same measure, our findings question how far a new technical regime of climate change actually grips practitioners, thus replacing commitments to collaboration, participation and policy integration. When judged against the three viewpoints identified in our study, which displayed limited support for technical ‘fixes’, the appeal of hitherto popular policies such as carbon control or mitigation-focused initiatives in the energy sector, or the current vogue for the ‘smart city’, could not be guaranteed or assumed over time.

Indeed, across the three discourses generated by the study, there is evidence of continued support for what we might term the spatial and political engagements of sustainable development, that is, the call for partnerships, integrated working, and the rethinking of relationships within and beyond the city. However, in terms of future constructions and visions of the ‘sustainable city’, none of the discourses offer an uncontested reproduction of what have been called mainstream views of sustainable development. The ideal of a positive-sum accommodation between economic growth,
environmental protection and social justice, enabled by technological innovation and business-friendly market reform, is often assumed to form the orthodox mobilizing discourse upon which to construct local environmental regimes and visions of the ‘sustainable city’. But, as our empirical analysis shows, given the cleavages between — and the different motivations contained within — the three discourses, it is difficult to escape the conclusion that this assumption may no longer operate effectively (if it ever did). Given this, municipal pragmatism, as evoked by Whitehead (2012), may well be a better characterisation of past practices than a prediction of current and future policies.

We also find uneven levels of support for radical green localism. The anti-system critique of progressive reformism chimed with neo-localist ideas, as did the advocacy of citizen mobilization by progressive localism. However, all three discourses displayed a marked antipathy towards narratives of local autonomy and self-sufficiency. Of course, when expressing their personal preferences, practitioners may often be more progressive than they are able to be when undertaking their professional public activities (Lombardi, Porter, Barber, & Rogers, 2011). Moreover, any progressive interpretations that emerge from the deployment of Q Methodology cannot be seen as ‘predictive of current or future behaviour’ (Hobson & Niemeyer, 2011, p. 968). But in itself, this potential clash of the public and private self has implications for our critical assessment of the emergence of new visions of sustainable cities.

Our study ultimately identifies a patchwork of ideas, coupled with a series of intertwined contradictions and antagonisms, which highlight the relative absence of shared mobilizing appeals that might make it possible to imagine and build alternative materializations of the ‘sustainable city’. We foreground the complex array of engagements among local practitioners, which militate against any neat division or framing of discourses of the ‘sustainable city’ (Guy & Marvin, 1999). In our analysis, each discourse conjures up a distinctive problematicisation of the ‘sustainable city’. Such distinctiveness can be seen to reinforce criticisms of the ‘fuzziness’ of sustainable development narratives, of what Harris and Moore (2015) call the ‘meme-complex’ of the ‘sustainable city’.

Fragmentation and heterogeneity: floating and empty signifiers

Our emerging conclusions point to the role of practitioners as bricoleurs. As Wilder and Howlett argue (2014, p. 189), policy proposals such as the ‘sustainable city’ are ‘not bound by dominant interlocking and coherent sets of ideas, but are rather the product of ideational “bricolage” in which policy-makers cobble together paradigms in a disjointed process of ideational construction.’ This policy bricolage leaves ‘loose logical ends and hanging threads, discordances and outright contradictions’ (Wilder and Howlett, 2014, p. 189). Equally, it guards against drawing totalizing accounts of the motivations of actors in the policy process. Policymakers, like business leaders, can be associated with multiple value systems, such that reimagining these ‘communities’ in their diversity proffers what North calls ‘a more generative politics of local climate action’ (North, 2016, p. 440).

Seen in these terms, the fragmented and complex constructions of the ‘sustainable city’ generated in this study should be seen as integral components of the process of policy change. When explaining their rationales for the sorting of statements, interviewees repeatedly expressed their desire to avoid relying too heavily on any single instrument or approach. More specifically, for example, our study documents the way in which the discourse of moral stewardship borrows different elements from the discourses of progressive reformism and public localism. Indeed, its capacity to draw equivalences between the latter two discourses may determine the emergence (or not) of alternative visions of the ‘sustainable city’.

Such interpretations can be supplemented by considering the discursive work of the signifier of the ‘sustainable city’. Drawing upon political discourse theory, it is expected that rhetorical appeals to the ‘sustainable city’ will not function in exactly the same way in different contexts. They may function as a floating signifier or an empty signifier (Laclau, 2005; Laclau & Mouffe, 1985). As a floating signifier, the concept of the ‘sustainable city’ is freely available to be articulated by competing hegemonic projects, where the latter seek to fix its meaning. When tendentiously emptied of meaning and signification, as different identities are linked together in their opposition to a common opponent, an empty signifier performs the role of representing an entire system or context or system, though the latter is never actually full or complete. An empty signifier provides the symbolic resources to bind multiple and contradictory demands in a universal project. It does so by embodying an ‘absent fullness’ towards which actors aspire, masking internal differences. It also demonstrates the outer limits of the group’s identity and thus its opposition to other groups. But equally, and finally, if the production of an empty signifier involves an exclusion of difference and otherness in the name of a universal fullness, then it makes possible the construction of an ideological discourse, as we have defined it.

It is arguable that in the discourses of the orthodox model of sustainable urban development prior to the financial crisis the notion of the ‘sustainable city’ has operated as an empty signifier (Davidson, 2010). It thus excluded radical eco-centric demands, while drawing equivalences between economic growth, environmental protection and social justice. The empirical findings of this study suggest that, in the context of austerity, challenges to ecological modernization have discredited dominant discourses, thereby rendering the ‘sustainable city’ vulnerable to different interpretations and articulations. It has thus become more of a floating signifier, and thus the object of competing discursive operations.

This means that the challenge ahead is for strategically-placed bricoleurs to engage in various practices of transformative leadership, whose goal is to reconfigure the discourse of the ‘sustainable city’. This will involve the drawing together of new chains of demands and the creation of multiple antagonistic relations. In short, this project requires a political process, which will partly involve the rhetorical redescription of the signifier of the ‘sustainable city’. If successful, the latter could once again serve to represent a universal goal that includes a variety of particular demands.

Towards pragmatic adversaralism

Our analysis and evaluation of the three novel discourses suggests that there remains (potentially) an unhelpful mismatch between, on the one hand, the lived experience of conflicting understandings that constitute the world of practice, and on the other hand the demands of those dominant discourses of collaboration and deliberation, which seek to fold different perspectives into some kind of broad deliberative or dialogical consensus (Healey, 2005). In the fractured contexts in which signifiers like the ‘sustainable city’ are employed and reiterated, the formation of an inclusive and reasoned collective consensus may ultimately obscure competing demands and understandings. It would thus carry the danger of new logics of depoliticization and exclusion, as
well as the possible creation of ideological discourses, which have characterized environmental planning and governance in recent times (Swyngedouw, 2010).

Put simply, the three discourses we have discerned in this study bolster the conclusion that the (would be) ‘sustainable city’ has to be a multi-stakeholder arena in which competing visions, informed by different social bases and power relations, are able to circulate. It would thus constitute what Guy and Marvin (1999, p.271) have referred to as a ‘cacophony of voices’. Indeed, austerity governance has amplified the demands for difficult choices to be made, throwing up the limits of ‘normal politics’ and calling for new urban visions and more participatory institutions (cf. North & Nurse, 2014). Appeals to ‘clumsy’ solutions that express the different elements of multiple viewpoints (Ney & Verweij, 2015) may offer pragmatic advantages in framing the politics of sustainable cities as the positive-sum accommodation of multiple ‘solutions’ in a composite whole. But the construction of such ‘clumsy solutions’ does not remove the need for greater dialogue and strategic clarity over the purpose of any alternative future vision of the ‘sustainable city’. Any shared purpose also has to be able to be contested and where necessary revised.

In an effort to acknowledge such tensions and conflicts, we thus conclude that urban planners and practitioners should consider governance norms more in keeping with what we shall call a practice of ‘pragmatic adversarialism’. As its name implies, this practice seeks to address one of the puzzles that existing endeavours to envisage and construct the ‘sustainable city’ have foregrounded, namely, the sharp disagreements about an apparently shared objective. The ‘adversarial’ aspect of our proposal emphasizes the stubborn and ontological presence of politics in any efforts to produce social change, as rival forces and projects clash and disagree about the best social outcomes. Adversaries are not simply competitors who bargain about outcomes within a fixed set of preferences, but nor are they enemies that are intent on each other’s mutual destruction. While adversaries passionately exhibit different values and ideals, they recognize the right of other forces to exist and promulgate their views, even if they are not entirely (or even minimally) successful. Indeed, deep disagreement about outcomes is both inevitable and in many instances desirable. This is because the expression of divergent ideals and interpretations of ideals is productive in a Millian sense, that is, in terms of the elaboration, consideration and testing of the greatest range of possible ‘experiments of living’ (Mill, 2003, p. 144). It is desirable also because it is essential for any durable settlements to be accepted and instituted by citizens.

The ‘pragmatic’ dimension touches upon the requisite ethos that is needed by social actors who may disagree about fundamental ideals, but who still wish also to improve their cities and the lives of all its inhabitants. In our view, pragmatism is first and foremost a practical orientation in philosophy, which asserts that ‘certain (suitably selected) practices or exercises of practical thinking are logically necessary or prior to every act of empirical and theoretical thinking, and hence to an immense number of our empirical beliefs’ (Gallie, 1967, p. 63). Expressed in political terms, pragmatism thus points towards the formulation and adoption of realistic ideals and policies, which can make a concrete difference. But it is also a way of interacting that is orientated towards the construction of legitimate compromises and second best solutions that can work. Pragmatism is in this sense an ethos which acknowledges that the search for Platonic ideals, which can engender universal agreement, is not only impossible, but that its very impossibility requires citizens to accept and consider a plurality of possible solutions, and to work towards constructing the best possible way forward in the circumstances.

Our approach endeavours to work with and through a myriad of differences and competing political practices by conceptualizing environmental regimes as political spaces in which partners come together as adversaries with legitimate rights, grievances and demands. In such scenarios, local actors should seek to increase the number of ‘voices’ who are able to question the purpose and performance of collaborative regimes and initiatives, and to raise legitimate grievances and demands. What is more, they should do so in ways that such concerns are dealt with or at least discussed in collective fashion (Johnson, 2014). Commitments of this sort require the construction of ‘safe’ spaces (Johnson, 2014, pp. 47–8). This means that actors should seek to adopt and design institutions and domains with an appropriate ethos of openness or agonism towards the rights and interests of other stakeholders, while also paying attention to those voices that are excluded or unheard in such exchanges (Norval, 2007). In such spaces, progressive governments and political leaders should fashion clear policy lines on sustainable urban development, while endeavouring to lead and persuade the public of their merits. In keeping with the findings of this study, it is only by adopting and embracing the politics of the environment, rather than seeking to contain or constrain such dynamics, that we can begin to forge new mobilising discourses of the ‘sustainable city’.

Conclusion

‘Sustainable cities’, like motherhood and apple pie, are much sought after goods in our unequal and environmentally destructive societies. Yet our article has demonstrated that ideological and political agreement on the basic contours and details of such visions by key decision-makers is not evident in two urban contexts – Bristol and Grenoble – which prima facie constitute ‘most likely cases’ to succeed. Instead, we have discerned and characterized three main discursive formations — progressive reformism, public localism and moral stewardship — and no real subjective grip amongst the subjects we interviewed and observed for any of the three discourses. We also detected considerable degrees of overlap amongst the discourses, as well as tensions and contradictions. However, there was in our view no real basis for the creation of a hegemonic project that could engineer meaningful urban change in the two cities. On the contrary, our research demonstrates the presence of a potentially ideological discourse of the ‘sustainable city’, which serves to mask over differences, tensions and contradictions, as well as potential antagonisms, between subjects and forces.

The upshot of our analysis is that, at best, the notion of the ‘sustainable city’ masquerades either as an empty signifier, which is used to galvanise and command universal support that is lacking, and thus runs the risk of functioning as an ideological discourse, or it operates as a floating signifier that can be articulated by diverse hegemonic projects. Yet this does not mean that the prospects for radical change are necessarily stymied. Instead, our article concludes by setting out a proposal for pragmatic adversarialism, which opens up the possibility of both encouraging and harnessing the lively contestation amongst rival ideals and discourses, while also seeking to forge legitimate compromises that can secure popular support and provide the grounds for radical change. Abandoning the purity of singular, zero-sum ideals which immediately generate a rational consensus, the way is opened for a more engaged, if complicated, set of negotiations that can ultimately win the consent of affected subjects and communities.
Appendix 1

Q sort values for each statement.
(PR, Progressive Reformism; PL, Public Localism, MS, Moral Stewardship)

<table>
<thead>
<tr>
<th>Statements</th>
<th>PR</th>
<th>PL</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The sustainable city is built on the synergy, not conflict, between economic development and environmental protection.</td>
<td>1</td>
<td>2</td>
<td>2</td>
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<tr>
<td>2. The sustainable city is resource-efficient due to its compact design that encourages functional and social mix and multiple transport options.</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>3. The sustainable city seeks to exist as an independent system, and to continuously replenish the ecosystems on which it depends.</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4. The sustainable city acknowledges the rights of future generations, present day disadvantaged groups, and those of non-human species.</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>5. Business, private initiative, and measures to improve market efficiency are the drivers of sustainability.</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Technological solutions to environmental problems are the best means to achieve sustainable development.</td>
<td>4</td>
<td>2</td>
<td>4</td>
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<tr>
<td>7. A strong policy lead from public authorities is required to drive forward the sustainable city agenda.</td>
<td>1</td>
<td>5</td>
<td>2</td>
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<tr>
<td>8. Social mobilisation, increasing the capacity of citizens to respond to global challenges, is the foundation of sustainable development</td>
<td>3</td>
<td>1</td>
<td>2</td>
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<tr>
<td>9. Economic growth is essential to make the sustainable city politically acceptable, and to enable prosperity to be shared with disadvantaged groups.</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10. The status quo is not sustainable given the need to mitigate and adapt to climate change, and to respond to peak oil.</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>11. The current generation has a moral obligation to ensure that it does all it can to protect the planet, and to restore depleted ecosystems.</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>12. The socially unjust city is unsustainable as it undermines the recognition of reciprocal rights and responsibilities of different social groups.</td>
<td>3</td>
<td>1</td>
<td>0</td>
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<tr>
<td>13. The essential problem is the failure of the market to appropriately value resources and assets provided by the natural environment.</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>14. The essential problem is that contemporary urban form is wasteful of resources and uses environmentally inefficient technologies.</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>15. The essential problem is that humans are attempting to live beyond the capacity of the earth to sustain them and other species.</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. The essential problem is that people have no control over their lives and resources, and inequality and environmental degradation are, thus, inevitable.</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>17. The essential problems are underdeveloped ideas of ownership, inadequate pricing, poorly constructed markets, and inappropriate regulation of the natural environment.</td>
<td>1</td>
<td>3</td>
<td>0</td>
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<tr>
<td>18. The essential problem is a lack of creative thinking to address the negative consequences of the current urban form, while retaining the positive aspects of suburbia.</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>19. The essential problem is that neo-liberalism reduces nature to a source of inputs and a sink for outputs, underpinned by the profit motive</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>20. The essential problem is that present society is based on the exploitation of most people and the environment by a minority of people.</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>21. Existing regulatory and legal systems do not make individuals and groups aware of the long term, global costs of their behaviour.</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>22. A lack of dissemination of best practice, civic leadership, active partnership with local business and citizens has impeded sustainable development.</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>23. Sustainability is too often reduced to design and technology-led solutions, rather than a holistic approach to developing liveable, future-proofed urban neighbourhoods.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24. Measures to improve the urban environment without considering its negative external impacts are inadequate to address the real challenge of sustainable development</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>25. The sustainable city must promote growth that is environmentally sustainable, well balanced and resilient, with its benefits widely shared.</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>26. The sustainable city requires a broad approach to changing the urban environment to create a settlement form that encourages greater conservation of resources</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>27. The sustainable city should source as much of its resources (e.g. food and energy) as locally as possible, and seek maximum efficiency in its waste systems.</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>28. The sustainable city requires a radical shift away from development in which humans dominate and control nature in favour of working in harmony with it.</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>29. The key to the sustainable city is that it provides efficiency savings and profitable investment opportunities for business and consumers.</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>30. The sustainable city requires changes in the urban fabric to reduce the need to travel long distances, to promote local service provision and facilitate social interaction.</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>31. A green economy means improving the efficiency and resilience of the economy, creating long-term prosperity that has been de-coupled from carbon.</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>32. Radical reform is needed to produce a democratic revitalisation so that government and society produce sustainable, accountable and equitable forms of capitalism.</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>33. Better information, changing behaviour, and improving management through market incentives are the best means to achieve the sustainable city.</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>34. Sustainable development requires identifying windows of opportunity arising from the co-existence of different social, political and commercial interests in alternative forms of environmental innovation.</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>35. We need to ensure that those responsible for making environmental demands assume the main responsibility for the consequences of their actions.</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>36. Sustainable development requires not just altering human behaviour in relation to the environment, but also changing the broader systems that shape human behaviour.</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

References


