(Re)politicising Climate Change Engagement: A Case study of the Carbon Literacy Project

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Declaration

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MA/MSc DISSERTATION

I, ...KATHARINE MOORE..................

hereby declare (a) that this Dissertation is my own original work
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has been specially prepared for a degree of King's College London;
and (c) that it does not contain any material that has been or will be
submitted to the Examiners of this or any other university, or any
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Acknowledgements

Abstract

Despite the inherently political nature of climate change, attempts to engage publics with the phenomenon are overwhelmingly post-political. This situation has informed a research agenda to better understand how to foster political engagement practices. Drawing on the potential for (re)politicisation to occur at the site of depoliticisation, and the interactional quality of communication practice, qualitative research was undertaken with the Carbon Literacy Project, a facilitator of city-wide classroom-based training on climate change, to understand to what extent and why its unique engagement model facilitates the depoliticisation and/or (re)politicisation of climate change. Findings suggest that the project has both post-political and (re)politicising qualities, which are explained, both separately and together, through different features of the intervention. Most significant and unique being the ability of training to generate consensus and conversation, a context for training that is simultaneously place-specific and set within organisations, as well as attention to the concept of culture.

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List of Abbreviations

CL   Carbon Literacy

CLP   Carbon Literacy Project

CP   Cooler Projects CIC

PUS   Public Understanding of Science

1. Introduction

According to a number of authors, anthropogenic climate change is "a fundamentally political issue" (Carvalho *et al.*, 2017:124). This is a seemingly straightforward position, but it can be understood in a number of ways. For instance, climate change is political since we understand the phenomenon differently (Smith and Howe, 2015). It can be understood as a natural and scientific phenomenon, conflict multiplier, social construction, or a major distraction hiding other critical issues facing society. It follows that disagreement exists over what action should be taken and how it should be solved - or indeed, whether you think it actually exists as a problem to be solved (Hulme, 2009).

A range of ways to understand the phenomenon has political implications for its governance. In their book exploring cultural politics, Bulkeley *et al.* (2016) expand on the political nature of climate change by making clear that living alongside climate change cannot be conceived of as a straightforward process in which singular technologies and governance strategies will seamlessly emerge and 'work'. They posit that realising a sustainable, decarbonised world will require politics and considerable change to our cultural desires and the high-carbon structures that persist in society, including entrenched but flawed governing devices. Similarly, Carvalho *et al.* (2017:131) argue that there is urgent need to "challenge the power arrangements and value systems that feed climate change". They suggest that we need to question the social structures that have underpinned the warming of the planet, ie. the global neoliberal market economy that lies squarely as its cause, but also power-structures which impede our ability to enact change.

The very 'politicisation' of climate change is also met with conflicting views (Pepermans and Maeseele, 2016). Although emerging critical scholars promote the intrinsic role of politics for understanding climate change and realising transformative socio-ecological change, there is longstanding wariness over politicisation for impeding rational decision-making and effective action (*ibid.*). In light of the potential threat of climate change and the need for significant change, some argue that downplaying politics in order to facilitate agreement and united action is a logical endeavour.

Straddling such divergent opinions on the merit of politics within climate change debate, yet in acknowledgement of that fact that this does not mirror the majority of engagement thus far, which has been free of politics and consequently labelled post-political (Pepermans and Maseele, 2016; Rice, 2016; Carvalho *et al.*, 2017), this paper builds on a research agenda to investigate how politics can be introduced to engagement practices. Taking departure from literatures which suggest that forms of constitutive communication and dialogue will be key to political engagement, this paper documents research conducted with the Carbon Literacy Project (CLP); a facilitator of city-wide climate change training. Through qualitative techniques the research sought to understand to what extent and why the unique engagement model facilitates the depoliticisation and/or (re)politicisation of climate change action.

This research framework was drawn from literatures which suggest that repoliticisation may occur at the site of depoliticisation. It is also informed by the perspective that it would be naïve to attempt to foster engagement that has political ramifications, without appreciating the entrenched existence of post-political engagement practices and the important role that they play in fostering low carbon action. Hence, in this study neither the post-political nor political aspects of the project are prioritised, but merely critically compared and evaluated, allowing for a balanced appraisal of the novel scheme in question.

The structure of this paper is as follows: the paper begins by tracking the current state of climate change engagement, explaining how this field is more politically uncertain than many realise, with normative beliefs split over what climate change is and what action on it looks like. This includes reflection on the fact that whilst post-political engagement is rife, engagement that fosters political action is particularly absent, highlighting constitutive communication as an avenue to explore to balance this predicament. After introducing the CLP, the paper reflects on the collaborative research design, before critically discussing the interpretative methods used. The largest section of the paper analyses the qualitative data collected, split into three sections: looking at features and reasons for depoliticisation; then (re)politicisation; and a final section highlighting factors and features of their interdependency. In the conclusion, areas for further research that emerge as a consequence of this study are highlighted.

The paper argues that the CLP has features that associate it to both post-politics and (re)politicisation. It seeks to deliver carbon reductions whilst simultaneously facilitating more inclusive dialogue, increasing the political agency of some bereft before, and instigating action that is environmentally *and* socially beneficial. The research highlights factors allowing this broad potential, including a novel delivery style, the malleable and anticipatory nature of training as an intervention, its place-specific and organisational context, charitable facilitation, educational aim and attention to culture.

2. Rationale

Understandings of climate change have changed incommensurably since the 1980s. First viewed predominately as a scientific problem, climate change is now considered to be as discursive, mediated and social as it is atmospheric or environmental (Hulme, 2013; Smith and Howe, 2015). However, as understandings of climate change have developed from the physical study of the atmosphere to include the social realm, they have scarcely informed engagement practices - meaning the ways that citizens are introduced to the issue and encouraged to think and act - which have also been on the agenda since the early 1980s (Carvalho *et al.*, 2017).

For the most part, engagement has taken the form of strengthening the relationship between scientists and citizens. The overarching logic of engagement practitioners has been a commitment to a linear 'public understanding of science' (PUS) model – that as publics become more aware of climate science, their values and actions will align to address it (Naustdalslid, 2011; Ballantyne, 2016; Carvalho et al., 2017). Yet these legacy and still dominating forms of engagement are understood to do little to increase citizens' political inclination or agency. Carvalho *et al.* (2017) argue that most engagement tools discourage and limit citizen engagement with the issue. These include information-campaigns, top-down invited initiatives and behaviour change techniques which project a narrow view of climate change onto a public perceived to be comprised of ineffectual individuals with little collective agency and able only to act in minimalist ways; often studied through social psychology (Corner and Groves, 2014; Leggett, 2014; Pepermans and Maeseele, 2016; Lukacs, 2017).

As a result, much engagement that currently exists has been labelled depoliticising and symptomatic of a post-political condition (Pepermans and Maeseele, 2016; Carvalho *et al.* 2017). Post-politics is a condition which exists when the boundaries of democratic politics are constrained (Wood and Flinders, 2014). With respect to climate change it occurs when the phenomenon is discursively framed and then acted upon as a physical issue that can be observed and managed only through science. This leads to the promotion of scientific discourse in order to create consensus around the practical management of the environment such as support and investment for new energy

policies, domestic technologies and infrastructures. Whilst this focuses attention on the environment, helping society to cope or become resilient to changes in our natural surroundings (Pelling, 2011), it is called post-, anti- or beyond politics because these techniques infrequently consider options beyond managing the environment. Discussions about what is truly best for society, who should be acting and society's role in the issue are foreclosed. Swyndegouw (2011) argues that environmental problems, and climate change in particular, are liable to post-politics because it is easy to generate a nature-culture dichotomy which removes the role of humans from consideration.

The antithesis of post-politics is captured by the term '(re)politicisation', borrowed from a paper by Carvalho *et al.* (2017). This term acknowledges the difference between politicisation and repoliticisation, but also their inextricably linked relationship. Unlike post-politics, politicisation refers to acknowledging the "clashing visions, values and interests between different social groups" (Bulkeley *et al.,* 2016:12). Politicisation can occur at every scale and space, and does not necessarily have an intended outcome or a consistent form. It refers to instances when more perspectives are brought to light, yet this can extend to include settings that are foremost constructed for reaching decisions about effective strategies for mitigating greenhouse emissions.

In light of the broad scope of politicisation, the term repoliticisation refers to politicisation when the aim is to create debate beyond that which is currently enabled by a post-political condition (Pepermans and Maeseele, 2016). According to Rice (2016:117) it is about "identifying, naming and debating conflicting visions for the future and… resisting the tendency to craft widespread consensus regarding the need for new technical and managerial policies". One outcome is to foster discussion of sustainable alternatives and futures beyond our neoliberal capitalist economic order - the root cause of anthropogenic climate change. Viewed this way, repoliticisation is a more specific and outcome-orientated form of politicisation, often associated to radical socialist aims. (Re)politicisation thus refers to the process of increasing politics whilst acknowledging the extremity of belief and associated action that this can encompass.

To be clear, (re)politicising climate change does not mean debating the rigour or accuracy of climate science, but rather the actions being taken in acknowledgement of

such certain science, and also irrespective of science. Given that those advocating for repoliticisation see the problems associated with climate change to be manifest more strongly within social not environmental systems, science about how the natural world is changing can be an unhelpful distraction.

Broadly speaking, achieving (re)politicisation through engagement means acting on the evidence of the insufficiencies of the PUS model and no longer seeking to increase only awareness of scientific knowledge within citizens or simply making sustainable behaviours easier (Naustdalslid, 2010; Baum and Gross, 2017; Carvalho *et al.*, 2017). Instead, techniques would highlight other obstacles to change, such as how most disagreements with respect to climate change are fundamental value-based disagreements (Holmes *et al*, 2012; Corner *et al.*, 2014). These underpin whether or not people can or will agree on solutions but also whether the issue is one that should be solved through managing the environment, or perhaps more fundamental changes within society, for instance if your values are incongruent with the mass consumerist culture feeding climate change that we currently live in. In combination with this awareness, and by connecting people with spaces of debate and decision-making, (re)politicisation seeks to empower people to want to create *better* opportunities for themselves and others, that go beyond changes in the name of the environment (*ibid.*).

In order to bring about such (re)politicising climate change engagement, a number of authors suggest that communication will be key (Felt and Wynne, 2007, Pearce *et al.*, 2015; Carvalho *et al.*, 2017). In particular, constitutive communication, also labelled true dialogue (Moser and Berzonsky, 2015) or two-way communication. This is a setting in which no individual is dominant and there is no expert, agenda or expected outcome. Instead everyone is an active member in discussion and decisions are made via democratic processes, not dictated by powerful economic and scientific technocrats who use certain types of knowledge as a form of power. Constitutive communication differs from even the most democratic discussions for managing the environment, because if no-one is in a superior position, no form of knowledge or way of knowing is prioritised, and the scope of discussion is far broader.

Carvalho *et al.* (2017) suggest that constitutive communication holds potential for (re)politicisation because it has ideational but more importantly, interactional qualities. Ideational refers to the content of communication which discursively constructs climate change as a technical or socio-political issue. The latter refers to communication as an opportunity to build social relations. Through this, political subjectivities can be created, engagement is performed, and "statuses and relations between policy-makers, corporations and citizens, amongst others, are constructed" (p128). If true dialogue is allowed, these relationships are built on trust, mutual respect and common ground (Moser and Berzonsky, 2015).

Not only is the terrain for decision-making democratised, one expectation of interaction is to overcome issues observed with repoliticising strategies of the past, such as the Climate Justice Action (CJA) movement, an overtly political protest directly challenging the capitalist system, and the Transition Towns movement, a network of linked localities prioritising self-sufficiency and sustainable community action. But with meaningful interaction and relations between opposing actors missing, these interventions have been deemed unable to make a difference to the status quo. CJA, for being too visionary – they could not propose a counter-hegemonic alternative to capitalism (Kenis and Mathjis, 2014a) - and for alienating people by focusing on such a broad agenda (Berglez and Olausson, 2014). In contrast, the Transition Town movement is considered too separate from spaces of power and conflict (Kenis and Mathjis, 2014b). Rather than actively challenging social structures or engaging in politics per se, it resembles an apolitical model for an alternative way of life (*ibid.*). But by distancing as far as possible from the global neoliberal economic order and working at the local and everyday scale, the Transition Town movement hasn't induced macro-political change (Bulkeley *et al.,* 2016). Consequently, both schemes only partially achieve the necessary qualities of successful repoliticisation as proposed by Rancière and Mouffe; to create spaces of conflict, and in which there must be clearly identifiable sides of debate to choose between (Kenis and Mathjis, 2014a).

Rather than providing suggestions of empirical contexts for further enquiry, Carvalho *et al.'s* (2017) paper only speculates about the potential for constitutive communication to overcome the above forms of unsuccessful repoliticisation. In a more constructive and

applied manner, this paper builds on the research agenda they set for political engagement by placing it in conjunction with other literature. For instance, the work of Kenis and Lievens (2014; 2015), who argue that politics is fundamentally about making visible what was previously unseen, and to whom repoliticisation is about ensuring that hegemonic green economy discourses, which are often represented as without uncertainty and based upon consensus, are exposed for their real qualities - riddled with "conflict, trade-offs, difficult decisions and power-struggles" (2014:544). For them, repoliticisation is also neither about directly addressing the abstract capitalist system, nor distancing from powerful subjects entirely. It is instead a process that can and should take place somewhere between the two, at the site of depoliticisation and the otherwise 'passive revolution' (Wanner, 2015) that occurs as organisations appropriate environmental concerns and render invisible the struggle that this decision-making involves.

Spaces in which organisations discuss and manage their approach to climate change thus emerge as prime areas for studying the potential for communication as a strategy to (re)politicise. Yet these are spaces in which little research has taken place. Organisations are private spaces whose inner workings are scarcely exposed to research. Moreover, the dominant assumption made about organisations is that these are places of foregone politics. This is the perspective advocated by those subscribing to the idea of 'post-carbon politics' (Urry, 2011), to whom discussions in organisational spaces are likely to be about techno-managerialist issues, such as how to make climate change align to their goals; still constituting politics but of a constrained scope.

Yet rather than subscribing to the idea of post-carbon politics, which manages to trivialise and render meaningless most forms of climate related action by focusing on what is not included, and instead taking departure from Carvalho *et al.* (2017) and Kenis and Lievens (2014), this research aimed to study the potential of communication as a tool for (re)politicisation and what form this might take in the organisational space. This was achieved through working with the CLP – a novel intervention that brings climate change discussions into public, private and third sector organisations. In this research, 'organisation' is understood as a recognised group of people with a common purpose or aim.

3. Case Study and Research Aim

Piloted in 2011, and launched in 2012, the Carbon Literacy Project is a collaborative citizen-led project based in Manchester, UK. It was conceived in response to the original and subsequent Manchester Climate Change Action Plans (MCC, 2009; 2013; MCCA, 2017a), which aimed to develop a 'low carbon culture' and as part of this, provide everyone in the city with the opportunity to learn about climate change. Aware that this aim was going unfulfilled, a social enterprise called Cooler Projects CIC (CP) initiated a 20 person working group to develop an educational standard for delivering this learning, framed in terms of helping everyone who 'lives, works and studies' in the city to reduce their carbon footprint. From this work, a mission statement and their definition of Carbon Literacy (CL) was formed, which is to provide "an awareness of the Carbon Dioxide costs and impacts or everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis" (The CLP, 2016:1).

The method of delivery the training is unique. Rather than delivering the training themselves, CP established a delivery project: The Carbon Literacy Project which facilitates and certifies training against a skeleton training standard (The CLP, 2016). This Project and the intellectual property is owned by the Carbon Literacy Trust, a registered charity. Whilst the CLP provides learning resources and all possible support for a small administrative fee, for training to take place, interested organisations must develop their own training scheme that will be meaningful for their audience. Those delivering the training must also be peers of the learners, meaning someone that to an audience 'feels like one of them'. In reality this means someone from the same sector, a partnership organisation, or where resource allows, the same organisation.

The result of this format is that no training is the same. Only a few observable features are consistently upheld by the standard. Training must: last a whole day (but not necessarily occur in one sitting); be delivered by a peer; be specific to the local area; take place in a group setting; include specified scientific and carbon related knowledge; refer to the need for everyone to take part and work towards not just a carbon-free, but better society; end with learners pledging a significant individual and organisational action;

and, upon completion a portfolio of evidence is submitted allowing successful participants to be certified 'Carbon Literate' (The CLP, 2016).

As of August 2017 the scheme has certified 6,224 people, within a range of organisations, including: the TV production and media industry; museum and cultural sector; construction and engineering sector; social housing providers; community groups; local authorities; and, some schools and universities. It has also grown beyond Greater Manchester to involve similar sectors across England, Wales, particularly Scotland, and more recently organisations in France and The Netherlands.

Given this background, the CLP is not an object of study for constitutive communication per se. Delivering training with some pre-determined information, including the scientific basis of climate change, means it does not foster a completely open form of two-way dialogue. However, given the attempt to fit to learners' needs and differences, the use of peers and a classroom setting, the extent to which 'top down' information provision is occurring was suspected to be significantly less than other studied examples of climate change education previously labelled post-political (eg. Rice, 2016). Moreover, based on the suggestion that (re)politicisation is likely to occur at a site of depoliticisation (Kenis and Lievens, 2014), the post-political potential of the training was embraced as a logical and potentially productive research terrain. Not forgetting that post-politics is not necessarily to be avoided in its entirety anyway. Pepermans and Maeseele (2016) make clear that rationality and consensus are ever-present features of decision-making and that forms of depoliticisation are still productive.

As a result, the research did not directly test for constitutive communication and its potential to bring about (re)politicisation. Instead a broader scope of study was adopted; to consider the project as a site of probable depoliticisation and potential (re)politicisation, with the contributing factors towards both to be determined. The specific research question was: ***To what extent and how is the scheme facilitating a) the foreclosure of politics (depoliticisation) and b) (re)politicisation?***

In this research, depoliticisation and repoliticisation are at different times viewed as a state or process. This reflects that whilst depoliticisation (as a process) can be translated

into the post-political condition, (re)politicisation is less easily tied down to a known future scenario and can only accurately be seen as a process for achieving change. It also avoids an outcome orientated approach, which is a common feature of post-political study but which stops close consideration of the nuance of the politics in question (Wilson and Swyndegouw, 2014). In order to make the findings transferable, 'how' is included. This ensures that the research uncovers not just to what extent the project engages with politics, but critically also the processes involved, in order to understand why this is the case.

The value of this research is that studies of political engagement with climate change are extremely scarce and more are required (Carvalho *et al.,* 2017). This sits within the need to study engagement more, given that the concept is surprisingly opaque and unexamined. The paper also builds upon perspectives claiming that information campaigns are a limited way to address climate change, either conceptualising the future too narrowly (Bulkeley *et al.,* 2016) or only removing barriers to behaviour change (Whitmarsh *et al.,* 2011), by exploring the understudied potential of peer-led communication in group settings (Korsager and Slotta, 2015, Van der Linden *et al*, 2015; Tauber *et al.,* 2015).

The case study approach is valuable because understandings of climate change in organisations and workplaces are rare (Bulkeley *et al.,* 2016), despite the fact that these are vibrant, already-existing spaces where pluralistic discussion and developing collective visions for how to act concerning climate change are possible. This research was a unique opportunity to examine an approach to climate change engagement in multiple organisational spaces. Furthermore, no similar interventions are known about, apart from *Carbon Conversations,* which is another project to foster local conversations about climate change, but which takes place in personal not organisational settings (Randall and Brown, 2015).

4. Methodology

4.1 Research Design

The need for studies of climate change engagement and communication that are closer to practitioners is a sentiment emerging from a number of academics within climate change (Ballantyne, 2016; Moser, 2016). Desirable outcomes from this include increased mutual understandings of communication needs and better translation of social research into practical use (*ibid*.). Fitting this agenda, this case study research was conducted in close partnership with the CLP. In addition to the aims outlined, the research was designed to assist the project to better understand to what effect it works.

Although this relationship underpinned the research design and conduct, careful judgement had to be exercised to avoid conflicting interests. For socially and environmentally valuable research demands that integrity and objectivity can be maintained throughout data collection into writing, whilst moral and practical expectations of those being studied are respected (Hay, 2010). Having said this, CP were an accommodating enterprise to work with; interested to have research conducted on their work, but without putting pressure on the form of the research. Although this means it was not a collaborative effort of equal influence, since CP were gatekeepers more so than established research partners, this set-up was considered mutually beneficial. It has led to an external piece of research for CP to consult (which is the justification for why CP were not formally interviewed), and a relationship that provided invaluable access to people and settings for insightful data collection.

Intended to uncover the diverse and unpredictable effects that the project may be having, from carbon management to value-based discussions, this research was conducted within the interpretative tradition, using qualitative methods most applicable to the study of politics and culture (Adger *et al.,* 2012). Two main methods were adopted: participant observation and interviews.

4.2 Participant Observation

Observing training sessions was an invaluable means to understand the interpretation of the standard by different stakeholders, identifying the significance of the training

experience and group setting as an interactional component of the intervention. Given the abstract nature of data collected through observation, the method was not expected to produce definitive results (Laurier, 2010). Instead, observations elicited discrete actions of interest that were compared to the reflections on the training captured in interview. Observation was also an important way to meet potential interview candidates.

Whilst the focus was to observe and make detailed notes, invitations to participate in the sessions' activities were often made. These were embraced as a way to build rapport and remove a researcher-participant hierarchy that can develop if an outsider watches without taking part (Laurier, 2010). Hence the method used is duly called *participant* observation (*ibid*.).

The training sessions attended were randomly sampled insofar as CP provided a list of all sessions occurring in May 2017. All conducting those sessions were approached about the possibility of being observed. All bar the local authority and university granted permission. Restricting, for practical reasons, the scope of the research to Manchester and the South, a session in Scotland was not observed.

In total, this research is informed by the participant observance of 5 training sessions, totalling 32 hours. This included the delivery of training to 12 employees at a community centre, 7 section managers of a MediaCity hotel, 6 employees at a regional social housing provider and 14 professionals from a range of backgrounds in the TV and film production industry. Apart from the latter, where the training was completed in a single day, observations were made only of the first or second session within a two-part training programme. The final session of a four part 'Train-the-trainer' course was also observed, where 6 people were being taught skills such as active listening and presenting in order to deliver CL to those working in museums. All sessions took place in meeting-room settings, and consisted of presented material, discussions and more practical activities.

Both written and verbal consent was obtained, and participants at all sessions have been anonymised in this report (see Appendix A and B for relevant ethics and consent documentation).

4.3 Interviews

In order to capture diverse perspectives and experiences of the project, regarding how it works and what effect it is having, semi-structured interviews were conducted with a range of stakeholders with varying roles in the project. An adaptable set of open-ended questions was used, but natural conversation was also encouraged so that unexpected themes could emerge (Longhurst, 2010). For instance, some of the most insightful contributions were given last, when interviewees were afforded time to provide their general reflections.

6 of the interviews were arranged using CP as an impartial gatekeeper since they were able to provide access to high profile figures extremely active in the project. Alongside this, a snowballing technique (Valentine, 2005) was adopted to arrange a further 17 interviews. For example, all of the trainers observed were interviewed (7), open requests were made to training groups for willing participants (7) and interview opportunities that previous interviewees suggested were followed up (3). Doing so ensured that this research is informed by learners and/or those associated with the project for less time. Notwithstanding formal interviews, this research is also informed by three weeks of immersion in the project, which led to multiple informal conversations.

Table 1 provides information about the 23 interviewees, including their: length of time spent with the project at the time of interview (italicised where estimated); professional role; relationship to the CLP; and, whether they are CL certified. 8 interviews were conducted via telephone, but the rest were conducted face-to-face, recorded and later transcribed. Face-to-face interviews took place either post-training or at mutually convenient times and locations. 4 people experienced their interview as a pair (combined and shown with a * in the table).

Table 1: Background Information on those interviewed.

Interview Identifier	Role within the CLP	Position at their own organisation	Time period since first CLP encounter	CL Certified? (√)
A	Anticipated	Skills Trainer at a Social Landlord	-	
B*	Learner	Community Team at a Social Landlord	1 day	√
	Learner	Community Team at a Social Landlord	1 day	√
C	Learner	Employment Team at a Social Landlord	1 day	√
D	Learner	Financial Manager at a Community Centre	3 weeks	√
E	Learner	Communication Team within a Children's BBC Media Production	2 months	√
F	Learner	Communication Team within a Children's BBC Media Production	2 months	√
G	Learner	Technology Co-ordinator at the BBC	2 months	√
H	Learner/ New Trainer	Self-employed Sustainable Videographer	3 months	√
I	Trainer	Sustainable Production Co-ordinator for Albert, Bafta	8 months	
J	Learner	Placement Student at Manchester Museum	*8 months*	√
K	Organiser	Administrator at Peel Media	9 months	
L	Trainer	Commercial Operations Manager at Manchester Museum	1 year	√
M	Organiser	Soft Skills lead at Toulouse ENSEIGHT	1 year, 3 months	
N	Trainer	Founder of Creative Carbon Scotland	*1 year, 3 months*	
O	Trainer	MMU Student	2 years	√
P	Key contact within City Authority	Research and Strategy lead at Greater Manchester's Combined Authority	*3 years*	
Q*	Trainer	Technical Services Manager at Peel Media	4 years	√
	Trainer	Energy Manager at an Energy Maintenance Firm, Engie	4 years	√
R	Trainer	Sustainability Manager at the BBC	4 years	√
S	Learner, CL Trustee	CEO of a Social Landlord	5 years	√
T	Trainer	Environmental Team at a Social Landlord	5 years	√
U	Trainer & Trainer-of-trainers	University Research Assistant	5 years	√

Only where useful have interviewees been mentioned by their professional role and/or organisation. Interview quotes are included only where they enhance the points made.

4.4 Limitations

Since interviews were conducted with those currently involved in the scheme and/or unavoidably most willing to talk, it is probable that this research consulted those with the most positive experiences of the project and most likely to disclose conclusive effects of the scheme, leading to a positive results bias. But as an initial exploration of the project, engaging with those who have found it most meaningful was deemed reasonable. The alternative is to actively seek out those who are less involved and who might speak speculatively rather than from experience. Furthermore, it has produced results that further research can test with a full cohort of learners and stakeholders. Nevertheless, to reduce the chance of a bias, attempts were made to speak with people with diverse opinions and experiences.

Drawing out findings across interviews makes this a holistic appraisal of the scheme rather than one specific to a particular training course. The research could have been more definitive if carried out in a single context, but the decision to conduct it holistically was a practical one, based on a lack of certainty over which organisations would be willing to take part and to what extent. It has also allowed a multiplicity of important reflections on why people find the program valuable to emerge. Where they are repeated across sectors their significance is clear. Nevertheless, the findings apply best to the media, museum and social housing sectors, reflecting the unintended focus of a majority of the collected data. Although a few interviews were conducted with stakeholders in Scotland, France and just outside London, the vast majority of the data was collected within Greater Manchester, and hence this paper most closely reflects the project's well-established hub of activity there.

The research has been completed by a single researcher which is known to affect the credibility of findings (Baxter and Eyles, 1997). However, repeat interactions, a wealth of interview data and a triangulation of methods were used to reduce the likelihood of a biased analysis. But given this situation, and since when discussing politics being explicit and reflexive about political preferences can be helpful (Pepermans and Maeseele, 2014), it is pertinent to note the personal viewpoint from which this paper is written; that realising a socially just and decarbonised society in which climate change can be lived alongside, will require radical change that is both environmental and social. The

functioning of the political is considered central to this, but never at the complete expense of reaching forms of agreement and consensus, or actions that are focused on managing the environment. Hence, the paper is written from a pragmatic position seeking greater (re)politicisation, but appreciative of how this interrelates and competes with depoliticisation.

5. Analysis

This analysis section discusses the data collected alongside relevant literature and has a trifold structure. The first part discusses to what extent and why the project is depoliticising. In the next section analysis extends to the qualities of the scheme which equate it more closely to (re)politicisation. The third section highlights important factors which inform both depoliticisation and (re)politicisation.

5.1 Depoliticisation

Post-politics is a state in which differences of opinion are silenced and discussions foreclosed. With respect to climate change, the foreclosure of politics has been equated to the promotion of science, tools to create consensus, the fetishization of CO_2 and techno-managerialist means through which to govern, avoiding need to study humans and their role in the phenomenon (Swyndegouw, 2011). In this research a number of these underlying factors were observed. The result is that – in line with the aim of the project – it is a means through which low carbon activity is being generated, but not without post-political qualities. An explanation for how the project is depoliticising and the factors that have led to this will now be discussed, relating to the training session and activities afterwards.

<u>Science</u>

In the interviews conducted, irrespective of the interviewee, the importance of science emerged particularly strongly when talking about the content of CL training. A number of trainers were keen to note that there is a heavy focus on science, particularly in the first session:

> *"We try to root it in the science, and the impact, what happens here, what rings lot of bells is the floods of 2015" (*Interview L*)*

> *"So a lot of the stuff that we present in the first session is about what is going to happen as a result of climate change, this is what will happen if we don't do anything about it, a three degree rise, a four degree rise…"* (Interview T)

In combination with science, the sessions observed had a clear emphasis on carbon – its contribution to the greenhouse effect and its invisible presence within everyday and

workplace activities. These features portray climate change as a physical phenomenon and carbon management as an indubitable focus of the learning and discussion. This constitutes a post-political framing of climate change, although not one that is particularly surprising given the use of 'carbon' in the project name.

The sessions are further generative of post-politics through the way that learners are referred to. Not dissimilar from Rice's (2016) account of environmental education, learners in the CLP are framed as needing to act on their carbon footprint, irrespective of their ability to do so. This has a subtle post-political connotation because it frames the learners as undifferentiated citizens, all of whom have an equal responsibility to act. Yet if considered at the city scale, this can be quite disempowering. According to one trainer (Interview T) the training may be targeting the wrong people, with most participants not part of the top 10% in society who lead the most destructive lifestyles.

Action Knowledge

One can also consider the scheme post-political given the main way that it achieves carbon reductions. A key tool in the training is the provision of action, also called 'how-to' or 'procedural', knowledge (Ortega-Egea *et al.*, 2014). Action-knowledge is post-political because it is generally uncontroversial, practical information that we can implement easily. It is not intended to change beliefs or foster debate like declarative knowledge on the cause of climate change. That said, not only does this kind of knowledge support action, it helps to generate the respect of an audience. For instance, one learner was pleasantly surprised that the session content was "applicable and not waffly" (Interview H).

Various anecdotes in interviews showed how action-orientated knowledge is producing carbon emissions reductions, although arguably more one-off than habitual in nature. For instance, directly following their training, a community group is having an external carbon audit of their building (Interview D). One producer has switched presenters' weekly travel from plane to the less carbon intensive train after realising that planes were not sufficiently quicker to warrant the carbon cost (Interview G). And, a number of learners and trainers mentioned the helpfulness of the correct knowledge on which energy suppliers are more renewable and how to switch. The most constructive and high-quality action knowledge was observed in the TV production industry, where the

sessions have been linked to the extensive resources of Albert, BAFTA's sustainability certification scheme.

Consensus

Depoliticising qualities of the scheme are also be found beyond the training setting. A number of interviewees mentioned that the CLP has a level of ownership and continuation which makes it very different from interventions that they have been exposed to in the past (Interviews: H, L, O Q, T, U). This reflects the anticipatory nature of 'training' irrespective of the context; always intended to provide people with new skills to develop.

Most unexpected was how this lends to the training a performative or active quality. According to one interviewee (H), attendance at training and filling in a pledge form is not about showing willingness to act on carbon alone. Rather gaining a qualification in CL – *"tells people that you are willing to be part of a conversation"*. This quote expresses how attendance at CL training is not a passive or one-time endeavour, but an act that rewrites the relationships between people that previously limited the discussion of climate change. As will be shown, this aspect of CL can be used to ensure that presence at training follows through to other actions. By starting conversations with something training session related, a platform can be generated for making other points.

The reason that this performative function works post-politically aligns with the perceived mutual understanding and agreement that the training fosters. A unanimous sentiment felt by all trainers is confidence that the training has proven that there aren't many 'climate deniers'. That said, denialism was often spoken about uncritically, without awareness that climate scepticism can go beyond the causes of climate change, to include a lack of belief in the ability to govern (Rhamstorf, 2004; Poortinga *et al.*, 2012).

Nevertheless such perceived consensus allows references to the training to act as a proxy for discussion about why new organisational procedures should be followed. The result is that conversations in the past that felt like sustainable sales pitches are rendered obsolete and new sustainability agendas have been passed through organisations more quickly.

"And I said to her 'have you been on Carbon Literacy?' and she had, and so for me, that cuts out 15, at least 10 minutes' worth of 'why are we doing this, what's the point of filling out this form' – all of that has gone. Because I say, 'do you understand where we are coming from' – 'yep I understand it'. So although it is a day's worth of learning – when you get into the practical application of what does it mean for them in their jobs - it just takes out all of that kind of 'well we are doing this because of blah blah blah'. So you don't have to have the same conversation over and over again with the same individuals. And you know that they've ultimately had a good quality understanding of it"
(Interview R)

"so I quite often get lines of enquiry that are coming to me …. [Carbon Literacy] allows me to flush them through our organisation with [those trained] understanding." (Interview Q)

"the benefit of the training is that it has taken away need for justifications"
(Interview D)

Because conversations are shortened, chances for disagreement and conflict about climate change or the response being taken are removed, agreeing with Hulme (2015:9) who argues that certain "knowledge claims [can] stand in as a proxy for political contest and obscure legitimate debate". The effect is that CL training is an effective means to increase the likelihood that corporate sustainability agendas as chosen by a senior management will be successfully and seamlessly adopted, such as the introduction of Meat Free Mondays to BBC canteens.

In all of these ways it is possible to equate the project with a depoliticising form of engagement. The scheme presents climate change as a scientific issue that can be solved through everyone taking action on the issue. In order to facilitate action on the low carbon agenda, uncontroversial action knowledge is provided. The scheme also allows sustainability agendas to be pushed through organisations with little challenge because opaque and consensus-buildings references can be made to the training. This is indicative of an attempt to create consensus which is an underlying feature of depoliticisation (Pepermans and Maeseele, 2016).

5.2 (Re)politicisation

Notwithstanding the ability to understand the project in terms of depoliticisation, a full appraisal requires one to look at (re)politicisation. This section more closely considers the training content, the kind of consensus it creates and how people use the training to challenge their organisation. This is followed by reflection on the training as a site of performing engagement. A holistic view of the scheme then shows how it acts as a model for better and alternative ways of life. Rather than a separate discussion, this section is an extended discussion of aforementioned findings.

City-led Revolution & Social Difference

The first way to appreciate the politics in the scheme relates to a continually reasserted aim of the project – that, as the birthplace of the industrial revolution, Manchester was the first place for carbon emissions to have been produced at scale and it would be fitting for it to be the first low carbon city worldwide. Whilst only subtle, this is an inherently political statement and a profound aim that many interviewees (M, O & Q) explicitly wanted to support. It captures the responsibility of people in Manchester to be first in leading a low carbon revolution with potentially globally ramifications mimicking the industrial revolution as the unequivocal cause of anthropogenic climate change. Given this aim, the project was clearly conceived with an awareness of the social root causes of climate change. This perspective challenges the comment (page 24) about the scheme targeting the wrong people. If considered on a global scale, the project acknowledges that people of industrialised counties have particular responsibility to act.

Whilst leading a low carbon revolution is only one of many ambitions underpinning the project, it sets considerable precedence. Providing city and place-based change has meant that alongside educating with scientific material, the scheme must appeal to a broad city cohort. As a result, in equal measure to the science of climate change, is an underlying awareness of social difference. In all training observed it was mentioned that climate change is a psychologically complex issue and one that people are expected to respond to in different ways. Moreover, all trainers are united in the belief that running a productive and positive training session necessitates that they suspend judgement upon what learners think or believe:

"I'm not here to judge. I don't judge anyone. Because I really believe that people just don't have the knowledge, the tools, to be different and to do it in a different way." (Interview I)

"I kind of say fairly upfront – this course is not about me telling you what to put in your programme. You wouldn't like it, that's not my job, that's not what it is about." (Interview R)

"Erm and what we've always set ourselves is to set an example. And not tell people how they should behave." (Interview L)

Non-judgement is intended to create comfortable settings that appeal to very different but equally valid personal understandings of climate change, and in which people can comment and not refrain from asking questions. In this way the sessions are, if one overlooks their scientific focus, to some extent culturally sensitive to "who has voice, whose values count and what information is legitimate" (Adger *et al.*, 2012:114).

Below is a quote which summarises an uncertain balance between politics and science in the training. It shows how one particular trainer is caught trying to appreciate differences amongst learners' beliefs and embrace politics and voice in this light, but at the same time emphasize the rigour and lack of politics that should be associated to climate science:

"It makes them feel like they are being valued and they are being listened to. We explain that we are putting politics aside, and that it is purely about the science. The thing with science is that we know it's true, its factual and we try to take all of the politics about it away." (Interview L)

It is in light of this that comments such as "*we aren't actually here to change opinions*" (Interview T) and "*it's not even being able to changing people's minds, it's about giving them the opportunity to think about things*" (Interview L) make sense, because having an inclusive setting means not authoritatively telling people what to do or think.

It is pertinent to note the productive nature of the organisational space as a reason for this culturally sensitive setting. No business would be prepared to run a session if it had any potential to offend, discriminate against or create divisions between their members.

Conflictual Consensus

Whilst the notion of consensus explained how making opaque references to the training is a way to ensure carbon reductions initiatives are justified and supported, it is an elusive concept (Machin, 2013; Pearce *et al.*, 2017), requiring further critical reflection. In the examples and quotes given on page 26, direct references are made to the training sessions, but people are not explicit about the training session content. Arguably, this is because there is no aim to change opinions and therefore achieve resounding consensus on everything discussed. More accurately, training sessions were observed as occasions where people agree on the latest climate science and carbon-related information presented, but 'consensus' less clearly extends to what action should be taken. In this way the training appeals to Mouffe's (2005) idea of a 'conflictual consensus' – achieved when spaces are created for inclusive and meaningful dialogue, where dissensus is acknowledged, and agreement is not necessarily achieved or intended (Sund and Öhman, 2014).

It follows that a diverse range of people are welcomed to the training, and an equally diverse range of outcomes emerge from it, some of which are more political in nature. The research showed that people have used mere attendance as a platform to ask probing questions about the extent to which an organisation is taking their carbon reduction management seriously – showing willingness to be part of a different kind of post-training conversation (as mentioned on page 25). Two poignant examples reflect this. In one interview, a trainer expressed how he used the fact that his CEO had completed CL as a lever to ask him about the way that they were going to furnish a new office, and whether buying new was preferable:

> *"And so I was talking to the chief exec and I said- you've been on the Carbon Literacy training – I've calculated for you the carbon footprint for buying new desks for all office – erm comments? Thoughts? It's the equivalent, its…, we could omit the emissions for a hundred houses for a year or something like that."* (Interview T)

A second set of vivid examples of challenge emerged in a lengthy discussion concerning Manchester Museum's CL programme. According to a lead trainer, the training has achieved a situation in which *"the questions now and the conversations being had now weren't being had before"* (Interview L). At the Museum, questions are exposing the values of the Museum and its commitment to produce wildly creative, informative and aesthetically pleasing displays against a need for them to be designed sustainably (quote below). Also emerging are queries on the purchase of merchandise, café produce, and even enquiries about the packaging used by market stallholders frequented by staff at lunchtime.

> *"he will now make enquiries about, if he wanted to put on an exhibition, erm, roman history, would it be better to source it totally from in the UK, even if it meant he couldn't the key exhibits. Or would it be permissible to source outside – where would we consider?"* (Interview L)

These acts of questioning are a sign of (re)politicisation at work. People have taken the opportunity to express concern over the Museum's operations, even if at the micro-scale, and their high-carbon assumptions and values. And whilst these examples show questions that revolve around carbon management and may symbolise a form of post-carbon politics, this categorisation fails to ignore the unlimited scope of these employee-driven conversations which pair environmental concerns to a discussion of other values. For instance, not just how to reduce the carbon footprint of an exhibition, but whether fancy displays actually matter, and more than environmentally sound ones. The training is thus encouraging new voices to enquire about the extent to which the organisations are adopting carbon management and how deep that commitment is. This supports the form of repoliticisation proposed by Kenis and Lievens (2014).

Although it is not possible to say exactly which factors have led to people speaking up, the data highlighted some potentially important findings which build on the interactional quality of communication and agree with the Newell *et al.*'s (2015) assertion that creating (political) action on climate change demands that people are given opportunities which match their capability. For instance, such acts of questioning were specific to workplace settings, where staffing was of a few hundred people, and

where senior management had also taken the training. They were not mentioned with respect to peoples' personal lives, the much larger university setting or much smaller organisations. These factors align with theories of self-efficacy within political engagement, that we act depending on whether we know how to, and whether we believe actions are likely to have meaningful effect - ie. will concerns be taken seriously and acted on (Carvalho, 2010; Hart and Feldman, 2016). The findings suggest that self-efficacy is enhanced by the size of the organisation, as this affects how realistic interaction after the training will be and the scope of action possible, as well as senior management buy-in, which sets precedence for issues being considered important. Where these two factors are present, organisational cultures have shifted such that employees now have the practical means and belief to think that posing questions will be worthwhile. The anticipatory quality of training also appeals to the fact that political efficacy cannot be realised in the short-term but requires an extended period over which to develop (Hart and Feldman, 2016).

One can also reflect on a controversially productive use of science for (re)politicisation. Although science represents only a single framing of climate change as a physical issue, trainers and learners alike see its value for delivering a course which brings together the widest possible audience. Science is understood as one of the few ways to appeal to all levels of ability, from those without English as a first language to chief executives (Interview Q). In this way it increases the potential to create a conversation and interaction at the organisational scale about climate change.

Notwithstanding the assertion that political gestures are being made, it is pertinent to note that this was not necessarily intended. In interviews, descriptions often framed the training as apolitical, uncontroversial and tailored to people's needs, rather than portrayals of the scheme as inherently political. When asked about the challenges that the training encounters or encourages, most interviewees construed these questions as negative, rather than appreciative of the centrality of politics to any form of social change (Bulkeley *et al.*, 2016). On the one hand this avoids associating the CLP with incivility and disorder, often coupled to politics (Carvalho, 2010). A trade-off is that post-training challenges made back to organisations are informal and less public. The lack of visibility and support given to making such challenge does not help their cause,

and could be considered reminiscent of the silencing present within post-politics (Kevin and Lievens, 2015).

Yet promoting politics could be crucial to the scheme's success. Whilst the training is enjoyed by most, those most sensitive to the politics of climate change are known to find the training frustrating:

"it hasn't been the deniers that have been the problem in the groups that we've had – its tended to be very much those who are really into it, and they can get actually, more aggressive" (Interview L)

This finding is consistent Corner and Groves (2014) who suggest that improved scientific literacy can amplify polarisation. Arguably, those best informed about the social nature of climate change are most likely to embrace (re)politicisation but may not do so, and even resent the scheme, unless they are made aware of channels through which to inject these beliefs. Undoubtedly there is hence a tension in the project between making participants focus on reducing carbon budgets and empowering them to challenge what their organisation is doing. Currently the former is favoured, but there are signs of the latter's emergence.

Political Performance

A further way that the scheme has a (re)politicising capacity pertains to the role of the trainers. Interviews uncovered how delivering training sessions gives some trainers greater prestige and power. For some, this power manifests itself in their professional life – for instance, helping them to achieve promotions (Interview Q). But at the same time, most trainers neither consider themselves experts, nor adopt the role for professional gain. Instead, they relish the opportunity to talk to people about climate change for personal reasons:

"its a relief thing… Carbon Literacy is a way of communicating everything I have always believed in… given a voice" (Interview H)

"I felt for a long time that I am quite well read on this stuff but unless you tell people -what use is that knowledge? There's the opportunity to people and find

out some of their arguments as well. I am keen … after this… to move on to talk
to more people who disagree with me." (Interview T)

The ability to speak to people and give voice suggests an underpinning politics to the delivery of the training, exemplifying Carvalho *et al.*'s (2017:132) claim that we need to see "communication practices… as a site for performing engagement". Since trainers are passionate about their sessions, they invariably tailor them to suit their own ideas and beliefs, using anecdotes and a personal touch. This tailoring is restricted by the standard, but not in its entirety. And whilst the ability to tailor the session can be considered political, instances where this is done to stray from promoting climate change as a technocratic and scientific issue also makes it repoliticising, for instance:

"I think it is important that we move away from it being an environmental
issue, so in the first session I have is it about the environment? No." (Interview
T)

But if speaking on behalf of climate change is a political act rarely free of from power-relations (Boykoff *et al.*, 2009; Ballantyne, 2016), one might question whether the trainer's increased empowerment comes at the expense of learners, or the possibility for open dialogue. However, based on observation and interviews, such concerns are currently unwarranted. The trainers presented themselves as exceptionally grounded, modest and passionate about their role to facilitate non-judgemental discussion sessions. Empowerment mostly applies to increasing their confidence to speak in settings previously deemed uncomfortable. For instance, many trainers spoke about wanting to talk to ever more challenging and high profile audiences. They are also likely to be the ones talking to their senior executives to challenge an organisation's approach to dealing with climate change.

An Alternative Model

To fully answer the research question - *To what extent and how is the scheme facilitating (re)politicisation? -* one can also reflect on the relationships produced through the project as a whole.

Even though the scheme allows people to interpret the standard in different ways, it still has a unifying effect. Organisations within the same sector frequently share resources, qualified trainers and implementation strategies. Moreover, new practices encouraged by the scheme may develop through partnerships made via the training. For instance, the project has connected people and allowed them to work in ways that are more local. This has the dual effect of action that is low carbon (eg. less transport) but also socially beneficial, because the work has greater ownership and meaning. For instance, Manchester Museum has started sourcing their exhibitions more locally now that they are aware of the collections held within the museums where they have helped to deliver training. They refer to this not only as a low carbon change, but as a positive shift in working practice:

> *"I think we're getting on and beginning to think – oh actually – you know, is there a better way? Actually, do we have to bring over this item from Paris? Is there not one down the road in Warrington? A typical example was, the extinction exhibition, it was a Panda... we actually got one from Macclesfield... and yet initially they were looking overseas."* (Interview L)

These findings build upon the cultural political work by Bulkeley *et al.* (2016), who argue that climate change interventions do not become established unless they are made meaningful to people. They posit that successful interventions must interact with people's cultural desires, which are not individual values and beliefs but socially constituted aspirations that transcend individuals and which underpin the way that we approach our everyday lives, such as what it means to be a honourable citizen, diligent employee or good parent. These desires are not about the environment per se, but they are sufficiently culturally embedded to guide our response to climate change. The research showed that the training doesn't just promote carbon reductions or challenging change, but even more poignantly, the CLP has engaged with people at the level of fundamental cultural desires. For instance, it challenges them on what it means to do good business – ie. with a local and therefore reduced carbon footprint, simultaneously making it more gratifying, and often cheaper and easier.

From this it emerges that the CLP is reminiscent of the Transitions Town movement. Similar to that intervention, collective action is generated through social capital and a sense of community is created (quote below). Yet in contrast to that movement, the CLP takes place in less cosy and personal settings, but within higher-profile commercial organisations and public facing institutions – this facilitates greater potential to challenge formal spaces climate policy and politics upholding the status quo.

> *"...it's helped developed a sense of community amongst the businesses at MediaCity. I'm not saying that there wasn't one before – I am sure that they were in contact over a million and one things - but it has built this little community."* (Interview T)

An important factor which has enabled the scheme to raise social capital is its aforementioned situated nature. This has allowed people to feel a part of something and unite (Interviews: C, L. O, T, U), but it has also enabled local organisations to work together. Yet as the project grows, it has to negotiate how to maintain a place-specific context. One solution has been to relaunch the project in new locations without association to Manchester.

In this section reflections have been passed on the repoliticising qualities of the CLP. Albeit using science, the sessions are political and culturally sensitive spaces. As a result, the effects of the scheme are not predictable and some people have used the training as a basis to start conversations about the extent to which carbon management is being taken seriously by organisations. Moreover, the scheme allows trainers to practice (politically) performing their engagement with climate change. Holistically, the scheme is also a way to meet people and act at local scales for social and environmental gain. Factors which have shown to be influential in these political outcomes include: a place-specific context; the need for inclusive interventions within organisations; the level of interaction between learners; organisation size; top management involvement; and, the project's design which gives responsibility to trainers.

5.3 Both or neither?

Discussion has so far considered the scheme in a post-political and then (re)politicising light. However, rather than separate facets of the project, these qualities should be

understood as interdependent. To be discussed are six mutual factors which facilitate both.

First, and to be explicit and clear, the training was uncovered as a device that is malleable and meaningful to people in a number of different ways. Some embrace the content of the training and the scientific consensus that it supports as a way to remove politics, reach agreement and act on a sustainable agenda more quickly. By contrast, others build on attendance at training as a platform to start conversations and ask more testing questions. These interpretations of training, drawing upon its ideational and interactional qualities, are generative of post-training conversations that are both post-political and political.

Second, although the literature informing this research suggested that interaction through communication is key to (re)politicisation, the research showed that interaction has multiple purposes and cannot be distanced entirely from post-politics and carbon-focused activity. One way the sessions generate low carbon activity is by facilitating peer co-operation. On one occasion, two learners were witnessed sharing email addresses (and later formalised a business deal) around a paperless production management service. The sessions are also occasions when people are given time to devote to thinking about what they should do to remove carbon in the workplace (Interview I). One trainer mentioned that the biggest change he has seen since training is people now approaching him with low carbon ideas, rather than the other way around (Interview Q).

It is nevertheless important to be aware of the social imperatives for action which exist independent of any political consideration. One trainer stated mid-session that the reason she had changed her energy provider was because she struggled with continually suggesting it to learners, despite not having done it herself. She arguably did this because of the social norms associated with lecturing; being honest and speaking from experience. Yet one could (mis)interpret this as a wholly political act to support a smaller energy firm, or as a post-political form of carbon reduction. This point is not intended to undermine the purpose of this study, but rather show the level of detail

necessary for associating reasons for doing things and how social interaction is generative of myriad effects.

Third, many people and a range of organisations, including the commercial sector, are involved partly because it is charity-run. For instance, opinions of the project are most estranged on the way that the project should be evaluated and its outcomes. The following quotes show two trainers, one of whom felt that the scheme is about delivering carbon reduction outcomes, and the other who feels that it is all part of a process of change. These two perspectives build on alternative interpretations of climate change, as a technical problem or a more social process, and how it will be solved:

"It all needs to be output driven rather than process driven" (Interview T)

"I see the training as the start rather than the finish of the process. There's the training and the actions and the follow up and then what people see around the organisation and how they interact with other people." (Interview V)

The project is able to host such contradictory positions because the approach of the scheme is to let organisations carry out the training and develop it in ways to suit their audiences. But another reason that those supporting the outcome-led view remain invested in the project, despite their desire to measure results, is that it would be disrespectful to expect a resource-stretched charity to measure their effect (Interview P). Consequently a number of organisations are prepared to engage with the project even without categorical evidence about how much carbon is being reduced – although this evidence does exist even if in a speculative form by some (Interview Q).

A simple premise of education or 'a day's worth of learning', is a fourth factor that ensures the wide scope of the project. When asked about the aim of the project, rather than field suggestions about low carbon or social change, most mentioned its role to educate people. This is an insightful finding when related back to the theory of social movements– many of which are successful not because they try to tackle the biggest problems in the world, but instead a manageable part of them: divestment in fossil fuels; giving women the vote; and the salt tax as a focus for Indian independence (Mingle, 2013; Satell, 2016). The notion of education is simple and engaging, but also sufficiently

broad to appeal to people irrespective of their perspective on politics within climate change.

Fifth, one cannot overlook the type of organisations involved, many of which already have strong social agendas and realise that acting on climate change is consistent with strong social values, such as looking out for disadvantaged communities (quote below). But a social conscience does not always mean that intentions are overtly repoliticising. Some organisations, for instance the BBC, are able to focus on the carbon reduction element of the training, which would otherwise suggest an ignorance to politics, because they already have such confidence in their social sustainability agenda and focus efforts where they can improve most, ie. their environmental impact (Interview D & R).

> *"Our responsibility is not just to provide homes but to make those communities successful. So how to make that chime with our values. Our values are putting people first, spending money wisely and supporting communities to be successful. Our three values. And you'll see that CL can contribute to all of those."* (Interview U)

Finally, working in a number of capacities may be a result of having culture as a guiding principle, with the scheme often referred to as a cultural change project. Despite the considerable and growing amount of literature on climate change and culture, very little work understands what an applied cultural approach to climate change looks like, beyond a study of arts and media (Adger *et al.*, 2012, Bulkeley *et al.*, 2016). Yet this research offers some insight, and shows how a focus on an amorphous term such as culture and cultural change can enable a scheme which takes an overtly scientific notion of climate change at its outset to discretely embrace politics, and thus have both post-political but also political outcomes.

To understand this, one can appreciate many ways of understanding culture and thus cultural change (Keesing, 1974; Spencer-Oatey, 2012), but focus here will be on two of the simplest. One the one hand, the term can be associated to the idea of a collective. Cultures are understood as learnt yet unspoken rules, values, norms and practices associated to certain groups of people, which may be (or once were) place specific

(Geertz, 1973; Van Gorp, 2007; Adger *et al.*, 2012). This explains why we often associate 'cultural change' with the generation of a singular low carbon culture or transition (MMC, 2017b), symbolising a collective of people acting in a newly convergent way. This fits the project, which is linking people together in new communal networks in the city of Manchester. This is generative of low carbon action, as well as a transformative model of local business.

At the same time, culture is sensitive to difference; a culture is not identifiable unless differentiated from another, much like identity (Cohen, 1993). To be culturally sensitive is to be aware of differences in priorities and practices amongst society. Understood this way, change that is truly cultural could mean that which is geographically inconsistent, more closely tailored to peoples' needs and intentionally generative of divergent effects. We might think about plural 'changing cultures' rather than change of a singular or consistent form. Arguably, the project is also informed by this more political interpretation of culture, since it embraces the needs of different organisations and learners, allowing them to generate their own training and response.

This point has been over-simplified, since people today rarely live in discrete cultures. But even if we understand people as "living culturally rather than in cultures" (Hulme, 2015:2; 2017), convergence and divergence is still observable within the myriad systems of meaning that make up culture, and critically also within the functioning of the CLP.

6. Concluding Remarks

This research sought to analyse the Carbon Literacy Project in order to understand the extent to which the program satisfies delivering decarbonisation whilst also increasing political agency with respect to climate change. The research question explored was: *to what extent and how does the project facilitate a) depoliticisation and b) (re)politicisation.*

The first contribution of this paper is to show that the Carbon Literacy Project, despite its name, is difficult to consider as more post-political or (re)politicising; it is about delivering carbon reductions at the same time that it fosters more open discussion about the scope and implication of the changes to be made. The training promotes science, actionable information and frames everyone as needing to do their part. Moreover, the training can be referred to as a site of (scientific) consensus, which supports the work of sustainability professionals. This facilitates effective forms of carbon reducing activity. But whilst achieving carbon emissions reductions is an important outcome, the training also produces a form of conflictual consensus. People with different beliefs are involved in the training, and employees have leveraged attendance at training to question and challenge the motivations of their workplaces when different values collide.

(Re)politicisation is also evident in the way that trainers are provided with opportunities to project their own concerns and views – enabling them to use the training as a way of performing their own political engagement with the issue and talk to increasingly influential people. Studied holistically, the scheme was also seen to be (re)politicising given the way it functions to bring local businesses together and inspire better ways of working, both for society and the environment. The project successfully mobilises deeper values surrounding being part of something bigger, helping others and meeting new people as reasons for taking part. Drawing upon Kenis and Lieven's (2014) work on repoliticisation occurring at site of depoliticisation, but for which there has been limited empirical study, these are not insignificant findings.

The second contribution of this paper is an understanding of the factors and reasons for the above, which may be transferable to other interventions. In particular, depoliticisation is facilitated by ideational qualities of the communication, including a

scientific focus and actionable content. Actions of a more political kind are assisted by: maintaining cultural sensitivity and ensuring non-judgement; a place-specific context; the need for inclusive interventions within organisations; interaction between learners within organisations; top management involvement; and, the project's design which shares responsibility for creating resources, delivering the training and action afterwards. Underpinning both depoliticisation and (re)politicisation, training is clearly a malleable and anticipatory intervention, with ideational and interactional qualities. It can be used to facilitate consensus and also more open conversations simultaneously. The training also has a clear educational aim which means that agreeing on exact outcomes of the project is not necessary, and facilitation by a charity increases the number of organisations willing to take part. The research also showed how adopting 'culture' as a guiding principle sets precedence for actions that are simultaneously unified and divergent.

A third contribution of the paper is significance to ongoing debates over how to increase political engagement in the organisational space. The significance of the CLP arguably lies in the actions it inspires in the days, weeks and months after the training. Hence the study challenges the suggestion that information is a limited means to address climate change, but advocates for more research to focus on the interactional rather than ideational qualities of climate change communication. Interaction clearly needs greater promotion, since some people spoken to stated that they wouldn't take the training because they already have a higher qualification in climate change, such as a relevant masters or PhD. Yet if they understood that the training content is only partly responsible for the actions produced, and must be considered in combination with the conversations, performances and relationships enabled through the training setting, perhaps they would be more willing. However, not sufficiently addressed by previous authors is the fact that interaction cannot be entirely disassociated from action informed by post-politics and that social processes must be equated carefully to macro-political agendas.

A fourth and final contribution of the paper, is to inform wider research on engagement. The research shows that post-politics and (re)politicisation can exist side by side and need greater mutual study. This would entail further research in organisational settings,

potentially dependent on similarly collaborative research designs, with particular emphasis on how organisations roll out environmental agendas but can equally match the political capability of their members. Research might also focus on the inherent contradictions present when (re)politicisation occurs alongside depoliticisation and actors with contrasting views are associated. For instance, here, how those most politically engaged can find carbon-focused training frustrating, and the conflicting opinions in existence over how the project should have effect and be measured. Finally, more research is needed on the role of cultural change as a guiding principle for interventions which can unite people and their actions, whilst simultaneously facilitating ownership of the problem and a meaningful response.

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8. Appendix

King's College LONDON

Research Ethics Office
King's College London
Rm 5.11 FWB (Waterloo Bridge Wing)
London
SE1 9NH

20 April 2017
TO: Katharine Moore
SUBJECT: Confirmation of Registration for "Climate and Cultural Change: Insights from the Carbon Literacy Project"

Dear Katharine

Thank you for submitting your Research Ethics Minimal Risk Registration Form. This letter acknowledges the receipt of your registration; your Research Ethics Number is **MR/16/17-488**. You may begin collecting data immediately.

Be sure to keep a record your registration number and include it in any materials associated with this research. Registration is valid for **one year** from today's date. Please note it is the responsibility of the researcher to ensure that any other permissions or approvals (i.e. R&D, gatekeepers, etc.) relevant to their research are in place, prior to conducting the research.

Record Keeping:
In addition, you are expected to keep records of your process of informed consent and the dates and relevant details of research covered by this application. For example, depending on the type of research that you are doing, you might keep:
- A record of the relevant details for public talks that you attend, the websites that visit, the interviews that you conduct
- The 'script' that you use to inform possible participants about what your research involves. This may include written information sheets, or the generic information you include in the emails you write to possible participants, or what you say to people when you approach them on the street for a survey, or the introductory material stated at the top of your on-line survey.
- Where appropriate, records of consent, e.g. copies of signed consent forms or emails where participants agree to be interviewed.

Audit:
You may be selected for an audit, to see how researchers are implementing this process. If audited, you will be expected to explain how your research abides by the general principles of ethical research. In particular, you will be expected to provide a general summary of your review of the possible risks involved in your research, as well as to provide basic research records (as above in Record Keeping) and to describe the process by which participants agreed to participate in your research.

Remember that if you have any questions about the ethical conduct of your research at any point, you should contact your supervisor, the Research Ethics office, or a member of your Department's Research Ethics Panel for advice.

Feedback:
If you wish to provide any feedback on the process you may do so by emailing crec-minrisk@kcl.ac.uk.

We wish you every success with this work.

With best wishes
Research Ethics Office

Climate and Cultural Change – Insights from the Carbon Literacy Project

Dissertation Information Sheet

This research is being carried out by Katie Moore, a postgraduate student from the Geography Department at Kings College London, UK.

RESEARCH FOCUS: This research is looking into the efficacy of, and cultural politics surrounding, the Carbon Literacy Project as an example of a planned 'cultural change' intervention with respect to Climate Change. The Carbon Literacy Project (CLP), part of the Carbon Literacy Trust, is a collaborative citizen-led project in Manchester that assists organisations (businesses, charities, cultural and academic institutions and local authorities) to motivate their members to lead lower carbon lifestyles. The CLP was initially developed under the goal of achieving a low carbon culture in Manchester, but its scope has grown to include a number of locations across UK and Europe.

RESEARCH AIM: The aim of the research is to understand what effects the collaborative project has produced (within and between organisations) and personal/organisational understandings of 'cultural change'. These diverse perspectives will answers questions pertaining to what 'cultural change' looks like (if it exists), whether it can be planned, and to what extent the CLP model is a suitable mechanism for delivering climate change mitigation.

YOUR INVOLEMENT: To conduct this research, you are being asked to contribute in one or more of the following ways:

- Willingness to be observed during a Carbon Literacy Training session
- A semi-structured Interview

Qualitative findings from these methods will be incorporated into a Master's Dissertation, which will make up one third of the assessment for Katie's postgraduate degree.

Participation in this study is voluntary. You are free to withdraw at any point. All data collected will be kept confidential and used for research purposes only. All primary data will be destroyed after the Dissertation is assessed. Other than in specific circumstances, (i.e. you are being interviewed due to your professional role), any identifying characteristics will be removed and your anonymity preserved.

CONTACT: If you have any questions or comments you can email Katie at: katharine.moore@kcl.ac.uk or telephone, 07800 909960. The research is being supervised by Professor Mike Hulme, who is contactable at: mike.hulme@kcl.ac.uk

Thank you for reading this information sheet and for considering taking part in this research.

Consent Form

This part of the form is for direct participants in the research (i.e. interviewees, participants). Please read the information above, and then the points below. Please feel free to ask questions.

I ……………….…………………..…… agree to participate in the research outlined above.

I understand the purpose and nature of the study and have had the opportunity to ask questions for clarification. I am participating voluntarily. I give permission for my interview to be recorded and transcribed, and for quotations to be used in the final report. I understand that I can withdraw from the study, without repercussions, at any time.

Signed: …………………………………….   Date: …………………………………….

Appendix B: Consent Form Template