

China-to-UK Student Migration and Pro-environmental Behaviour Change: A Social Practice Perspective

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Abstract

Significant life-course changes can be ‘windows of opportunity’ to disrupt practices. Using qualitative focus group data, this article examines whether the life-course change experienced by Chinese students migrating to the UK has an effect on environmentally impactful practices. It does so by examining how such practices are understood and performed by Chinese and UK students living in their own countries, and contrasting them with those of Chinese students in the UK. Using a social practice framework, these findings suggest that practices do change, and this change can be conceptualised using a framework of competences, materials, and meanings. The findings show meanings – the cultural and social norms ascribed to pro-environmental behaviour – to be particularly susceptible to the influence of ‘communities of practice’ where immigrants and natives mix, with pro-environmental behaviour change resulting from assimilation and mimesis rather than normative engagement.

Keywords

behaviour, Bourdieu, China, environment, migration, practice theory

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Introduction

In environmental policy-making circles, the prevailing model of individual behaviour informed by economics and psychology, has assumed individuals to be voluntarist, deliberative agents, with the capacity to achieve behavioural change (Shove, 2010; Southerton et al., 2011). Others have criticised such approaches as overly simplistic and deterministic, blind to structural and contextual factors which constrain individual autonomy (Hindess, 1988; Welch, 2016; Whitford, 2002). Accounting for these factors has been a part of the project of theories of social practices, where the focus shifts away from the individual, and onto the ‘practices’ individuals collectively engage in. Practices – habitual ways we commute, eat, wash, cook, play sport, go on holiday, and so on – have been conceptualised as a combination of three elements: the meanings, competences, and materials involved in their performance (Shove et al., 2012; Spurling et al., 2013). Here, competence refers to the ‘skill’ necessary for a given activity, materials refer to the physical ‘stuff’ required for it, and meanings refer to the socio-cultural connotations or ‘image’ attached to it (Scott et al., 2012). Thus seen, understanding how pro-environmental behaviour change can (or cannot) arise involves a holistic appraisal of these interlinked elements which constitute practices.

Yet the more we understand about social practices, the more impervious to change they appear to be (Welch, 2016). This is because first, many practices are performed habitually and unreflexively, and second because the elements from which practices are constituted – particularly infrastructural provision and socio-cultural norms – are themselves often slow to change. Practices are therefore notoriously ‘sticky’. Some studies have examined how active interventions might reconstruct practices to make them more environmentally friendly (see Cass and Faulconbridge, 2016; Shove et al., 2012; Strengers and Maller, 2015), while Verplanken and Roy (2016) have looked into the potential for ‘naturally-occurring’ life-course changes – such as moving house – as windows of opportunity for less environmentally friendly habitual practices to be broken and for ‘greener’ ones to replace them.

This article examines another significant life-course change, migrating to a new country, and its potential to disrupt elements of practice. We can expect different countries to have different infrastructural provision (recycling, public transport, etc.), different levels of environmental awareness and concern, and different social and cultural norms (see Hofstede, 2001; Inglehart, 1971; Schwartz, 1994). These differences all have implications for how environmentally impactful practices (e.g. eating, using energy, and commuting) are performed in different places. But the potential for environmentally impactful practices to change when people move *between* countries is a much less-explored area. Metrics such as the Environmental Performance Index (EPI) illustrate variance between countries at the macro-level of environmental policy (Hsu, 2016), but little research has looked at whether and how migration between countries – particularly between high and low-ranking EPI countries – might affect migrants themselves in terms of more micro-level behaviours and dispositions, in relation to the environment. This article seeks to contribute to this research gap. As increasing numbers of students migrate from low to high EPI countries – such as from China to the United Kingdom, the context of this article (Office for National Statistics, 2016) – this

movement of people might have important consequences for the diffusion of pro-environmental behaviour. Research on this topic may also increase our conceptual understanding of how migration impacts on behaviour more generally.

Some scholars have applied certain theories of practice as an analytical lens to understand behavioural changes through migration. Of particular use are strands from 'early' theories of practice, such as Giddens' concept of structuration (Giddens, 1984) and especially Bourdieu's concepts of field and habitus (Bourdieu, 1977, 1979). Following conceptual work by Stones (2005) and Morawska (2009, 2014), other researchers have used these theories of practice to try and make sense of their empirical investigations into migrants, to tell what O'Reilly calls 'practice stories about migration' (O'Reilly, 2012: 8). Many of these stories show the habitus to be resistant to change, often despite the wishes or expectations of migrants themselves (Erel, 2010; Noble, 2013; Nowicka, 2015; Oliver and O'Reilly, 2010), although, as this article explores, there may be a possibility for habitus to be changed unreflexively within 'communities of practice': arenas whose 'members' (in this case, migrant and native students) mix regularly, resulting in often unintentional social learning.

A more recent strand of practice theory literature, primarily motivated by environmental concerns (e.g. Shove, 2003; Spaargaren, 2011; Spurling et al., 2013; Warde, 2005), has thus far neglected to look at migration in any depth. The findings in this article attempt to address this gap, and show us that migration may have potential as a mechanism for disrupting practices, and changing behaviour. Conceptually, the article brings together strands from early practice theories which have been applied to migration, and later strands which have mostly focused on the environment. Empirically, the site of our study is the growing phenomenon of students from China studying in Western countries (in this article, specifically in the UK) to see if this migration event was a cause for a change in environmentally impactful practices. Our research question is therefore as follows:

'How does migration affect the practices of students in relation to the environment?'

Our findings suggest, first, that China-to-UK student migrants report change in a range of pro-environmental behaviours. Second, we argue that this change can be conceptualised by grasping differences in the competences, materials, and meanings associated with particular practices after arriving in the UK. Perhaps the key change we find is differing *meanings* surrounding particular environmentally impactful practices, where the prevalent social and cultural norms of the host country (the UK) seem to have 'activated' hitherto latent practice repertoires, which were largely absent in the source country, China. By living and working in 'communities of practice', where they regularly mix with other Western students, Chinese students report a change in certain environmentally impactful practices. This appears to be a consequence of an unreflexive adaptation of their habitus to fit their new field, a process Bourdieu described as mimesis, rather than any substantive normative engagement with pro-environmental norms.

The article is organised into four sections. First, we place our research among the existing literature on theories of social practice. This is followed by a description of our methodology. We then present findings from our focus group discussions, and end with a discussion of those findings, limitations, and implications for future research.

Theories of social practice

We observe two relevant strands in the social practice literature. The first is based on 'early' theories of practice by Giddens (1984) and Bourdieu (1977, 1979), who portrayed social life as being about the recursive performance of practices as 'shared behavioural routines' which are reproduced by informed and capable agents, drawing on explicit or implicit 'rules' and resources. This strand has been applied to migration research in various ways. Morawska makes a case for analysing migration using Giddens' structuration theory (Giddens, 1984: 2). As structuration combines aspects of both structure and agency, it can thus account for how 'external' historical and spatial structures (war, famine, etc.) have a causal influence on migration, while migrants can also exercise degrees of agency in regard to their choice of host country and, after arrival, some degree of influence both to their host country, and their country of origin through transnational networks (Morawska, 2014). Despite some critiques of the application of structuration theory to migration (see Bakewell, 2010), it has been developed by scholars such as Stones (2005), who has created a more nuanced categorisation which others, notably O'Reilly (2012), have employed to migration phenomena. Stones' categorisation includes Wengers' (1998) notion of 'communities of practice', within which structure and agency are enacted by 'members'. Relevant members of communities of practice will vary depending on the type of migrant, and may include school staff and peers (e.g. for refugee children), government staff, neighbours and transnational communities (e.g. for migrant adults), and native/migrant students and university staff (e.g. for student migrants, as in this article). Communities of practice can be important sites for the transfer of habitus, either through the active pursuit and acquisition of cultural capital by migrants, or the unreflexive transformation of habitus through 'mimesis', that is, the unconscious imitation of other actors' actions (Bourdieu, 1977; Sieweke, 2014).

We see the influence of Bourdieu more explicitly in migration research, particularly his concept of habitus. Habitus refers to the system of dispositions which govern the ways an individual thinks and acts. Habitus is both structured by one's past and present experiences, and 'structuring' on one's present and future practices (Bourdieu, 1990). Habitus is related to the 'fields' we operate in, with field referring to the metaphorical arenas in which individuals display their dispositions, and mobilise and accumulate different kinds of capital. While field(s) structure(s) habitus, habitus is the basis for individuals' understandings of their lives, and thus the fields in which they act. Practices result from this habitus/field interplay (Nowicka, 2015: 13). When fields change as in instances of migration, habitus – the way migrants 'know' how to speak, act – is required to change as well. For Bourdieu (1979), this can either take an orderly adjustment, or a quick and uncomfortable mismatch he terms 'hysteresis'. Whether migrants simply 'juggle' the difference between the habitus of the host and source country, or if the habitus can really be transformed, is a question addressed by various researchers. Bauder (2005) finds migrants usually seeking fields for which their old habitus fits, rather than undergoing transformation. Oliver and O'Reilly (2010) observe retiree migrants who claim to want to reinvent their old habitus yet fail to do so. Noble (2013) observes migrants who wish to adapt their habitus to their new location, but are forced to negotiate an 'ethnified' habitus instead. These findings, as well as those in this article suggest that active

transformation of habitus is less likely than a passive, even unconscious process of change, imitation, and ‘learning’ akin to early years socialisation.

A second, later strand of practice theories concerns consumption and environmental impacts of practices (e.g. Shove, 2003; Spaargaren, 2011; Spurling et al., 2013; Warde, 2005). Here, we see a more systematic attempt to delineate component elements of practices, and to understand when they might be disrupted. Notable in this regard is Shove et al.’s (2012) schema of materials, competences, and meanings. Materials are things, technologies, infrastructures, and the ‘stuff’ of which objects are made; competences encompass skill, know-how, and technique; while meanings refer to the symbolic and cultural meanings, ideas, and aspirations which are entwined in a particular practice (Shove et al., 2012: 14). Practices emerge, stabilise, change, and possibly die out as links between elements are made and broken. Shove (2003) describes how disruption in the links can be because of ‘natural’ technological evolutions (e.g. the increased affordability of washing machines), which then have knock-on consequences for cultural norms (we adhere to stricter norms of cleanliness), which often have environmental impacts (we use more domestic energy and water). While practice theory has so far mostly been applied to understanding behaviour change, it is increasingly being applied in interventions in areas such as public transport use (Cass and Faulconbridge, 2016) or reducing energy use (Hargreaves, 2011; Shove et al., 2012).

Other research suggests that profound life-events have the potential to disrupt habituated practices, allowing new forms of environmental behaviour to take hold (Bamberg, 2006; Verplanken and Roy, 2016; Walker et al., 2014). For example, Verplanken and Roy (2016) found moving house a particularly powerful life-event. Their trial found that an intervention promoting a range of pro-environmental behaviours was more effective among recently relocated participants than those who had not moved house. In this study, we examine whether another significant life-event, student migration, might have a similar effect on environmentally impactful practices. The following section examines the role of cultural differences in accounting for different practices in a source and host country, and how cultural differences might be integrated into a practice approach.

Cultural values and theories of practice

As we have seen, theories of practice move away from individual motivations, towards an integrative understanding of behaviour which accounts for technical, social, and cultural contexts. Here we argue that context can, to an extent, be delineated by country. While cultural boundaries do not always coincide with geographical ones, countries remain a primary site with which to observe cross-cultural differences (Oreg and Katz-Gerro, 2006; Smith and Bond, 1999).

There have been various attempts to model country-based cultural differences (see Hofstede, 2001; Inglehart, 1971; Schwartz, 1994), of which Inglehart’s post-materialist thesis has most explicitly been linked to environmental behaviours. Post-materialism suggests that people in developing countries are more preoccupied with material values concerning physical sustenance and safety, and therefore hold weaker pro-environmental (and other ‘post-material’) values. In contrast, people in developed countries whose material security is relatively assured, may hold post-material values such as self-expression

and concern for the natural environment. Inglehart (1977) developed his own survey instrument for measuring values, and numerous studies have used such measures to find support for environmental action to be correlated with post-material values (see Dunlap and York, 2008; Gelissen, 2007; Inglehart, 1997).

Hofstede's six-dimensional theory on country-based cultural differences employs a slightly different range of variables. Using data from the World Values Survey, he developed six indices, of which the most relevant here are the 'power distance index' (PDI) and 'indulgence/restraint' (IND) (Hofstede et al., 2010). Societies with a high PDI—such as China, Russia, and India – tend towards centralised, top-down control, whereas low PDI implies greater equality and empowerment of citizens (Branson et al., 2012: 17). In terms of pro-environmental action, this may translate to citizens in low-PDI societies taking greater individual responsibility for the environment, while in high-PDI countries, citizens may defer to the state to take responsibility on their behalf. Branson et al. (2012) observed this responsibility/PDI trend in general terms, although they did not look specifically at pro-environmental action. Indulgence refers to the extent to which people try to control their desire for immediate gratification. High-IND societies – which tend to prevail in South and North America, and Western Europe – emphasise leisure-time over work-time, are more likely to be obese, are more permissive in regards to sexual mores, and people have a higher perception of being in control over their personal life. The opposite is true of high-restraint societies such as in Eastern Europe, Asia, and the Muslim world (Hofstede, 2011). In terms of pro-environmental action, this may translate to more consumptive behaviours in high-indulgence societies, and less willingness to make pro-environmental 'sacrifices' which may impede such consumption.

To date, models of cultural values systems have only been implicitly recognised in theories of practice, yet we argue that these may be relevant to, or even underpin, the constituent elements of practices – particularly competences and meanings – and thus help to expand our understanding of why practices differ between countries. As we will see, the issue of differing cultural values between China and the UK and an implicit reference to the post-materialist thesis did arise in our focus group discussions, and these factors may be useful in explaining differences between the UK and Chinese students' difference pro-environmental behaviours.

Methodology

Focus groups

The main research question addressed in this article is: *How does migration affect the practices of students in relation to the environment?*

To answer this question, we first address two preliminary questions: (1) How are practices understood and performed by both Chinese and UK students, in relation to the environment? And (2) to what extent do these practices change when Chinese students move to the UK?

A qualitative research strategy was chosen for two main reasons. First, our research team had few preconceived notions of how our participants would describe their pro-environmental attitudes and behaviours in advance of data collection. Based on indicative

previous findings (Hsu, 2016), we expected to find more evidence of pro-environmental practices among UK students than their Chinese counterparts, but were unsure of how these would change following migration by Chinese students to the UK. Second, as social practices are often performed unreflexively, using qualitative methods might allow us as researchers to provoke responses from our participants on topics they may not have considered before.

Specifically, the focus group method was chosen because, in contrast to individual interviews, focus groups allow a perception into how people jointly construct meaning (Bryman, 2008: 474), especially when group members have similar characteristics in common (such as age and nationality). Indeed, focus groups were stratified precisely to examine how such characteristics affect attitudes and behaviours, by comparing the discussions between different, internally ‘homogeneous’ groups (in our case: Chinese, UK, and Chinese-in-UK students). An additional advantage is that, in comparison with interviews, this homogeneity and sense of ‘group solidarity’ can create potential conditions for greater honesty and depth in participants’ responses (Kitzinger, 1994). We acknowledge inherent risks with using focus group data, particularly with the accuracy of participants’ reported behaviours, and that focus group data provides only a ‘snapshot’ in comparison to more longitudinal methods, which we might advocate for future research into how enduring behaviour change actually is.

Sample

Our sample was collected at two sites: one university in the UK and another in China. Both the universities are located in coastal port cities with small-to-medium sized populations (relative to each country), and each university features consistently in the top 20 of national rankings.

Seven focus groups were held with a total of 46 participants. Three of these focus groups were with Chinese students studying at the Chinese University, in July 2015. Two focus groups were with UK students enrolled at the UK university, and a further two focus groups were with Chinese international students, also enrolled at the UK University. These UK-based focus groups took place in January and February 2016.

For the focus groups in China, an opportunity sampling strategy was adopted. For those in the UK, we were able to stratify students by under/postgraduate status, and course of study. Doing this meant we increased the internal homogeneity of each focus group, which may have engendered ‘richer’ discussions, and meant we were able to observe potential differences by under/postgraduate status and/or course of study. For all focus groups, an even gender split was maintained wherever possible. Table 1 shows how each focus group was comprised, and Table 2 shows the characteristics of the focus group participants.

We do not claim our sample to be representative of their respective student populations. Chinese students studying abroad are themselves likely to be an elite group compared to their compatriots, as less than 2% of Chinese tertiary students study abroad (Gu and Schweisfurth, 2015). From other research which suggests that pro-environmental concern is most strongly felt among urban residents, positively correlated with higher income, higher education, and Communist party affiliation (Chiu, 2009; Liu and

Table 1. Focus Group arrangements.

Focus Group no.	Location	Nationality of participants	Under/postgraduate	Number of participants (male/female)
1	China	China	Undergraduate	6 (4 male/2 female)
2	China	China	Undergraduate	6 (2 male/4 female)
3	China	China	Undergraduate	6 (4 male/2 female)
4	UK	UK	Undergraduate	6 (3 male/3 female)
5	UK	UK	Postgraduate	6 (3 male/3 female)
6	UK	China	Undergraduate	10 (7 male/3 female)
7	UK	China	Postgraduate	6 (4 male/2 female)

Leiserowitz, 2009; Xiao et al., 2013), we might also expect Chinese international students to be skewed towards being more environmentally concerned.

Data collection and analysis

Focus group questions invited discussion on broad issues of environmental norms and infrastructure in each country, and specific experiences of pro-environmental behaviours. Focus groups with UK students were conducted in English. Chinese students were given the option of using English or Mandarin (most had at least some skill in using English) and chose to use their native Mandarin. While there is a recurrent debate into the advantages/disadvantages of insider/outsider status in qualitative research (see Dwyer and Buckle, 2009), we elected to use moderators who were ‘insiders’ in terms of nationality and native language. This reduced the need for cross-cultural explanations during focus groups. While our moderators attempted to engender an open and non-judgemental environment, we concede that ‘outsider’ moderators might elicit more frank responses. For all focus groups with Chinese students, a Chinese bilingual Mandarin/English speaker acted as moderator, while the focus groups with UK students were moderated by a British native-English speaker. Both moderators were members of our research team.

Following the discussions, our Chinese bilingual moderator translated transcripts into English. As this moderator/translator was also a member of our research team (rather than an external translator) we were able to try and minimise translation errors by checking and back-translating transcripts, as per standard practice (Brislin, 1970). Thematic analysis of transcripts was conducted by the lead author, aided by NVivo computer software. At the start of the analysis, a small number of codes were generated which were informed by our theoretical framework. These included ‘materials’, ‘competences’, and ‘meanings’. Following the first round of coding, sub-codes were generated, which expanded upon the initial codes, particularly ‘competences’ and ‘meanings’. These sub-codes included ‘cultural values’, ‘responsibility’, and ‘post-materialism’.

Findings

To answer the primary research question, *How does migration affect the practices of students in relation to the environment?*, we first posited two sub-level questions: (1)

Table 2. List of Focus Group Participants.

Focus Group no.	Location	Name (pseudonym)	Gender	Age	Nationality	Course of study	Under/postgraduate
1	China	Huanwen	Male	20	China	Accounting	Undergraduate
1	China	Lin	Male	19	China	Chemical Engineering	Undergraduate
1	China	Zhao	Female	19	China	Civil Engineering	Undergraduate
1	China	Hui	Male	19	China	Economics	Undergraduate
1	China	Luo	Male	19	China	Politics	Undergraduate
1	China	Yutong	Female	19	China	Graphic Art & Design	Undergraduate
2	China	Lina	Female	20	China	Education	Undergraduate
2	China	Feng	Female	21	China	Chinese Literature	Undergraduate
2	China	Jiali	Female	20	China	Chinese Literature	Undergraduate
2	China	Dai	Female	19	China	Accounting	Undergraduate
2	China	Wang	Male	19	China	Chemistry	Undergraduate
2	China	Feifei	Female	19	China	Material Engineering	Undergraduate
2	China	Jiaxin	Male	20	China	Management	Undergraduate
3	China	Aidan	Female	19	China	Economics	Undergraduate
3	China	Zilin	Male	19	China	Management	Undergraduate
3	China	Liu	Female	20	China	Public Affairs	Undergraduate
3	China	Yawen	Male	19	China	Foreign Languages	Undergraduate
3	China	Shaoqin	Male	21	China	Economics	Undergraduate
3	China	Zifeng	Male	20	China	Public Affairs	Undergraduate
4	UK	Sammy	Male	19	UK	Sociology & Criminology	Undergraduate
4	UK	Joey	Male	18	UK	Sociology & Criminology	Undergraduate
4	UK	Jim	Male	18	UK	Sociology & Criminology	Undergraduate
4	UK	Steffi	Female	19	UK	Sociology	Undergraduate
4	UK	Cat	Female	19	UK	Sociology	Undergraduate
4	UK	Nat	Female	18	UK	Sociology & Criminology	Undergraduate

(Continued)

Table 2. (Continued)

Focus Group no.	Location	Name (pseudonym)	Gender	Age	Nationality	Course of study	Under/postgraduate
5	UK	Alice	Female	29	UK	Social Statistics & Demography	Postgraduate
5	UK	Flo	Female	25	UK	Social statistics	Postgraduate
5	UK	Benji	Male	26	UK	Social Statistics	Postgraduate
5	UK	Ivan	Male	25	UK	Social Statistics	Postgraduate
5	UK	Sandra	Female	27	UK	Social Statistics	Postgraduate
5	UK	James	Male	27	UK	Social Statistics	Postgraduate
5	UK	Alice	Female	29	UK	Social Statistics & Demography	Postgraduate
6	UK	Zhou	Male	19	China	Accounting & Finance	Undergraduate
6	UK	Gary	Male	19	China	Business Management	Undergraduate
6	UK	Fang	Male	20	China	Accounting & Finance	Undergraduate
6	UK	Jing	Female	21	China	Business Management	Undergraduate
6	UK	MC	Male	19	China	Accounting & Finance	Undergraduate
6	UK	Ron	Male	19	China (Hong Kong)	Accounting & Finance	Undergraduate
6	UK	Di	Female	20	China	Management	Undergraduate
6	UK	Wan	Male	21	China	Actuarial Science	Undergraduate
6	UK	Joyce	Female	19	China (Hong Kong)	Economics	Undergraduate
6	UK	Jack	Male	20	China (Hong Kong)	Accounting & Finance	Undergraduate
7	UK	Zhan	Male	25	China	Education	Postgraduate
7	UK	Li	Male	25	China	Electrical engineering	Postgraduate
7	UK	Yi	Female	24	China	Education	Postgraduate
7	UK	Sun	Female	23	China	Risk & Finance	Postgraduate
7	UK	Xiaoke	Female	22	China	Business	Postgraduate
7	UK	Xiaotong	Female	24	China	Education	Postgraduate

How are practices understood and performed by both Chinese and UK students, in relation to the environment? and (2) to what extent do these practices change when Chinese students move to the UK?

On the first question, we restrict our data to that collected from students in their home countries, and divide our findings into two sections. In section ‘Different accounts of practices relating to the environment in China and the UK’, we identify different accounts of practices relating to the environment, in each country. In section ‘Cultural values and pro-environmental ‘meanings’’, we identify the influence of cultural values and how these may relate to environmentally impactful practices, with particular reference to theories of cultural difference provided by Inglehart and Hofstede.

Having established the differences between Chinese and UK students regarding environmentally impactful practices, we then examine how these change, using data only from those Chinese students who came to the UK. In section ‘The effect of migration to the UK on pro-environmental practices’, we observe the effect of migration to the UK on pro-environmental practices, and in section ‘Social practices, meanings and conformity’, we note the importance of ‘meanings’ as a key element which enables change in practices, especially when those meanings are associated with norms of conformity.

Different accounts of practices relating to the environment in China and the UK

Among students in both the countries, there was a consensus that protecting the environment was worthwhile. An implicit recognition of the importance of the environment was, broadly, shared. The emphasis differed. British students framed environmental concern in terms of the dangers of climate change, whereas Chinese students emphasised the threats of pollution, and air quality in particular. Given the recent, acute rise in concern about air pollution in China, this is perhaps understandable (Pew Research Centre, 2015). Regarding their own behaviour, almost all students, regardless of nationality, displayed many misperceptions about the relative contribution of activities to environmental degradation, a tendency found elsewhere (Lorenzoni et al., 2007; Whitmarsh et al., 2009). This was epitomised by the way that litter, domestic waste, and turning off lights dominated discussions, despite their relatively small contributions to pollution and climate change.

When asked about what kind of environmentally impactful practices participants engaged in (or refrained from) themselves, responses started to differ. Chinese students discussed activities such as recycling, turning off lights, and printing less paper for their studies. UK students mentioned these activities, but also mentioned the installation of solar panels, reducing the carbon footprint of their transport choices, and reducing meat consumption. In the case of recycling in the UK, Benji and James (both male UK post-graduates) commented that this practice has now become unremarkable. They noted how relevant infrastructure, know-how, and pro-recycling norms have been in place for some time.

James: I remember being a kid, and nothing was recycled, nothing. We didn’t even have boxes, we just had a bin bag, and now I don’t know anyone that doesn’t recycle, from all types of backgrounds.

Benji: I think something like recycling is now the norm for our generation so if I said, 'I recycled all of my milk bottles the other day' no-one would be impressed.

James: Yeah [even] my mum does it! (Laughter)

Chinese students highlighted the fact that while they know that their practices may be environmentally damaging, they and their peers do them anyway because of contextual factors which make such practices easy or necessary. Printing was a recurrent theme for the Chinese students, who often said that many of their peers print unnecessary papers due to the fact that printing is very cheap (costing around 1 jiao per sheet – less than one pence), or because their teachers require them to do so.

Zhao (female Chinese undergraduate): I always print pictures due to my major courses, and we have to print in big size, A1 with colour printing. It could have been controlled, but the teacher always asked us to print, print, print, so it wastes a lot. Another issue is that people like to print one-sided when they print materials to read, especially test papers. I think it makes no difference whether you print it one-sided or two-sided.

Interviewer: Then why you think people like to print more?

Zhao: Cause it's really cheap, just few jiao, so they print one-sided.

Lin (male Chinese Undergraduate): I also like to print one-sided, 'cause it is really cheap here in the campus.

We might interpret these examples as being about *material* elements related to very cheap price signals, or the requirements of student's university courses, which act to prevent more environmentally friendly printing practices. Other examples given by the students showed that there was widespread ignorance in China over how to recycle, even when the material infrastructure to do so was in place.

Zifeng: (male Chinese undergraduate) Everyone is encouraged to sort their waste, and litter bins are also designed to sort waste. However, we don't really know what the differences among different bins are. I still remember the first time I saw waste sorting bins in my hometown, I was hesitating and thought for a while which bin I should choose, but when I check the litters in the bins, I could see no differences. So we should do more than just saying waste sorting, waste sorting, we should actualize the slogan.

On the issue of the meanings ascribed to environmental behaviours, or what Reckwitz (2002) calls the historically culturally specific 'understandings of the world' (p. 251), Chinese students said there was far less social pressure to be 'green' in China, describing a society which is permissive in terms of environmentally (un)friendly behaviour.

Hui (19-year old male Chinese undergraduate): I don't notice much pressure in China. Basically you can do everything you want in China. I suppose.

Zilin (19-year old male Chinese undergraduate): I don't think the public opinion today pays much attention to people's green behaviours, no support, no criticism, just ignore.

Feng (21-year-old female Chinese undergraduate) described how some of the cultural meanings attached to eating practices in China are almost purposely wasteful, a fact she became aware of when comparing such practices with foreign friends.

I have a Malaysian friend who is well-educated and from a rich family. I always want to spend more money to treat my friends, but he always want to order less so that less can be left. He said that lots of leftover means lots of waste, and it is rare in Malaysia to see such huge waste. I think this is the difference and conflict of different cultures.

The UK students did not directly express a sense of social pressure to 'be green', but many did say that they felt a sense of respect for their peers who did 'make an effort'.

Joy (19-year old male UK undergraduate): I think that if you see someone who is out to protect the environment in their behaviour then you definitely respect them more, you sort of feel that they're taking an active role and you should be doing the same.

While most of the UK students were reluctant to say that they felt explicit pressure to 'be green', and some expressed discomfort at the idea of being 'conspicuously' green, most of them implied that they understood why it was important, and that they often felt guilty for not 'doing their bit'.

These findings suggest that the way Chinese and UK students understood and performed certain environmentally impactful activities were quite different, and that using the schema provided by Shove et al. (2012) can be a useful way to unpack the differences. It became clear that while the 'materials' which enable pro-environmental practices might be present in both China and the UK (e.g. recycling provision), perhaps the most significant instances of divergence were around competences (how to recycle properly) and meanings (why recycling is important). As described in the following section, theories of cultural values may be useful in explaining some of these differences.

Cultural values and pro-environmental 'meanings'

We argue that cultural values are likely to underpin elements of practices, and particularly competences and meanings. To make sense of how practices are performed differently in different countries, we therefore need to be aware of how cultural values differ. We observed some important differences between the Chinese and British students in terms of cultural values, particularly relating to post-materialism and government/individual responsibility.

In different ways, support for the post-materialist thesis was evidenced by both UK and Chinese students. Both sets of students recognised that the UK, like other Western countries, has passed through its development phase and is now better placed to focus on environmental issues than countries such as China, which are predominantly focused on development and poverty alleviation. Wang's comments are illustrative of many of the Chinese students'.

Wang (19-year-old male Chinese undergraduate): The green economy is actually a relatively new idea rather than an old and well developed concept, and therefore we should wait. The UK suffered a lot by the pollution during the industrial revolution period, but now they have changed a lot, so I still believe that this is a long-term process and the concepts should be changed from the top down.

Sandra (27-year-old female UK postgraduate), the only UK participant who had lived in China for any period of time, corroborated this viewpoint from her own experience:

When I was in China, they were so preoccupied with development. I mean there was a pollution issue. But the main thing was 'we need to develop, we need to be like the west'. They were always asking me how they compared to UK, but that was more about wealth than about being green.

Several of the UK students agreed, and also expressed a sense of guilt which the UK's history of carbon-intensive development presents, as expressed by Sammy (19-year-old male UK undergraduate):

Then there's the issue that we got through our own industrial revolution, and we did a lot of bad stuff, polluting stuff. And yet when other countries wanna strive and have what we have and have this lifestyle, we say 'you can't have that because you're using too much fuel'. It's quite difficult really.

The issue of economic security being a prerequisite for economic concern was also seen to apply on an individual basis, as well as at a national one. Both for Chinese and UK students, it was perceived that being 'green' was a luxury for the rich.

Hui (19-year-old male Chinese undergraduate):

Only when we have a good economic status, can we think about the quality of life.

Zifeng (20-year-old male Chinese undergraduate):

Yeah. Environmental protection should be discussed when you can live better financially.

James (27-year-old male UK postgraduate): I think it's a money issue as well, because ultimately it's quite easy to consume meat sustainably or clothing if you can afford to do that. But for whatever reason it's extremely cheap to buy food that's made not locally, or clothes that are produced in Bangladesh and so on. It's very difficult to turn around to someone and say 'oh you should buy this organic chicken for ten pounds' but for some people that's impossible.

The UK and Chinese students hinted at quite different societal values when discussing issues of responsibility for environmental problems, a difference we had not expected before data collection. We observed Chinese students expressed more support for top-down solutions to environmental problems, whereas the UK students supported more individual-level responsibility. While there was a common admission that governments and individuals both have environmental responsibilities, the tone was quite different. UK students argued that the government needs to enable individuals to behave in a

greener manner, while Chinese students argued that the government should encourage behaviour change far more forcefully, and punish those who do not comply.

Sandra (27-year-old UK postgraduate): I think public transport is very expensive and that means that people do tend to use their cars more rather than alternatives, so I think there's a responsibility for the government to make public transport better and also encourage more people to use it.

Lina (20-year-old female Chinese undergraduate): From the nation's aspect, the penalty is not tough enough. In Japan for example, garbage should be collected by categories, or one should be punished, and if one company is not good, the price for it will be too high to afford, and thus people won't do so. However here in China, the price is not high enough, so it is hard to depend on individuals to develop sustainably, so it is more important to get national level rule and laws.

Feng (21-year-old female Chinese undergraduate): Sustainability needs to be guaranteed by laws. Laws are strict without emotion. You have to be punished if you make mistakes, and can never be passed for an apology.

Liu (a 20-year-old female undergrad): We should think about it from country's level. I have watched a documentary 'Under the Dome', which stated that the main pollution was caused by industrial companies. Individuals can do little to help.

This support for more draconian state action might reflect the fact that China is ruled by a more authoritarian regime than the UK, and that the state will therefore be more proactive in enforcing violations of acceptable behaviour. It might also reflect China's high rating on the PDI – a measure of the extent to which members of society accept and expect that power is distributed unequally (Hofstede, 2001).

British students seemed conflicted in regard to the meanings of particular practices which were often in conflict with one another. For instance, most of the UK students associated driving positively, with connotations of convenience and freedom, while also recognising that it is also negatively connoted with pollution and carbon emissions.

Steffi (19-year-old female

UK undergraduate): I'm really bad for that. In the first semester I didn't have my car here, and then I couldn't cope with like, walking in the rain and waiting at the bus stop. So after Christmas I brought my car here. It's probably not good in terms of this discussion but ...'. (Laughter)

James (27-year-old male

UK postgraduate): Our whole society is almost built around the idea that we're not going to be sustainable. So every action that you take has to be almost at odds with what you're expected to do, except for some things like recycling ...'.

These comments might be indicative of a dissonance between the UK's supposedly post-material values and its high measure on Hofstede's 'indulgence' scale. Discussions

with the UK students were marked by a sense of guilt that they knew what kind of behaviours are/are not environmentally friendly, but often failed to live up to their own standards.

Overall, the discussions with Chinese and UK student in their own countries showed that while concern over the environment appeared to be fairly similar, the reported behaviours differed greatly. Chinese students reported a series of barriers to environmental behaviours, which may be seen in terms of the materials, (and particularly) competences and meanings which might engender more environmentally friendly behavioural outcomes.

Students from both countries also made implicit links with theories of cultural values, namely Inglehart's post-materialist thesis and Hofstede's notion of distance from power. We argue that cultural values can underpin the meanings associated with practices, and thus, how cultural differences might help account for the differences in pro-environmental practices in the UK than in China (as reported in section 'Different accounts of practices relating to the environment in China and the UK'), and also a greater emphasis on individual responsibility in the UK than China (as seen in section 'Cultural values and pro-environmental 'meanings)'). These findings from the UK and Chinese students in their own respective countries also provide us with some kind of 'baseline' with which to compare and contrast the findings from those students who moved from China to the UK.

The effect of migration to the UK on pro-environmental practices

Looking only at those Chinese students who had come to the UK, we observed a widespread feeling that the move had a profound effect on their newly found 'transnational' identity. Part of this change was discerned in practices with an environmental impact. Students focused mainly on their behaviours concerned waste and littering, and described how such behaviours had adapted and 'improved' since coming to the UK. In different examples, we observe how changes in the elements of practice – materials, competences, and meanings – might help us comprehend behavioural change and the participants' reported adaptation of their habitus.

Some students, like Jing (a 21-year-old female Chinese undergraduate in UK), noted that there was less *provision* for recycling in China, whereas in the UK waste is sorted into many different containers. Her habitus regarding recycling seems to have adapted to her new field.

Jing: About litter sorting. I am quite environmentally-friendly I think so I do litter sorting. But in my home there are not corresponding boxes for different kinds of litters, but here I do cause I see different boxes. So ...'

This might be interpreted as a change in the provision of services which enable the practice of recycling in the UK, but not in Jing's home in China. While Jing considers herself environmentally friendly, it is obvious that for such intentions to translate into behaviours, changes in infrastructure, or what Hall calls the 'services of provision', are crucial (Hall, 2013). This was echoed by Beenackers et al. (2012), who found that

whether a person started cycling after a relocation depended far more on the presence of bicycle infrastructure than it did on attitudes to cycling.

In terms of competences, Xiaotong, a 24-year-old female postgraduate said that she didn't know about how to recycle before coming to the UK.

Xiaotong: Even though we our generation have the consciousness of environmental protection, we don't know how to classify garbage when we first come [to the UK], don't you find that? So consciousness is just consciousness, we should be educated how to actually do.

Xiaotong emphasises the point that merely consciousness, knowing why we ought to behave in a pro-environmental way, is inadequate without having the knowledge and skills to do so (Shove et al., 2012). Yet this is not to ignore the importance of the psychological meanings and understandings, which are also a key element of social practices. The Chinese students who were studying in the UK were highly aware of how social norms around litter, recycling, or saving energy were stronger in the UK, and how that motivated them to 'assimilate' to their new field.

Li (25-year-old male Chinese postgraduate in UK) summarises a common feeling of change.

I feel I changed a lot, and in many aspects. Like I used to study in Harbin, I don't mean all the people there, but people around me they don't quite concern environmental issues. If they got litters in their hands, they would directly throw them. Here the whole social environment is different, and the environment influence people, so you will put litters in your pocket if you don't find garbage box. Also saving energy, I feel there is positive influence here.

Just as previous practice-based energy-saving interventions have addressed 'meanings' of practices by appealing to positive cultural norms or notions of staff loyalty rather than pro-environmental concern (Hargreaves, 2011; Shove et al., 2012), it seems that in the case of migration, these students are similarly driven to behave in a pro-environmental manner due to norms of conformity rather than acting on pro-environmental attitudes explicitly.

Social practices, meanings, and conformity

The Chinese students in the UK did not offer reasons for their 'new' pro-environmental behaviour, but presented saving energy or recycling as activities which were largely learned as a result of the provision of services, newfound skills, and perhaps most importantly, out of a desire to conform with the dominant host community. One pertinent example of the influence of social norms (as opposed to environmental ones) was Di's description of her participation in her UK University's 'Black Out', an annual event where all university staff and students are encouraged to turn off all electrical equipment and lights for one 24-hour period.

Di (20-year-old undergraduate in UK): Can I say something about the 'black out' activity here? I live in halls [student residence], and there was an activity to ask people to be out at night so

all lights can be turned off. So Facebook encouraged people to be out. I knew this event but I forgot about it until I noticed the event on Facebook, and I suddenly I realised it was today's event. So I went out of my room to check if every room is black, 'cause I was so afraid that I didn't do so, so I just turn off the light even though I was still in my room.

Interviewer: So you were 'black in'

Di: Yes. I think this is a kind of social pressure for me. Actually I didn't know whether people were out or had just clicked 'yes' on Facebook but were [actually] still in their rooms.

Di discussed the 'black out' purely in terms of feeling social pressure to participate, without offering any reasons for why it might be a good idea. Her participation was discussed more as a function of conformism than any underlying pro-environmental attitudes. Similar notions of cultural acceptability became apparent in a discussion between postgraduates Xiaotong, Li, and Xiaoke (22-year-old female Chinese postgraduate) on the topic of putting litter in bins.

Xiaotong: Yes, everyone does it and if you don't do it then it's weird.

Li: Yeah, actually it's quite good doing in this way. But in China, it opposite, everyone doesn't do that and you do that, then that's weird.

Xiaotong: If you yourself do so and no one else do it, then people would think you're a psycho, and you always pretend to be different.

Xiaoke: I think another issue is group psychology. In China if everyone just throw litters around and you put it in your pocket, it's weird. But here everyone put it in pocket, then you won't throw it around. It's much like we say 'thanks' or 'sorry' more frequently here. Big social environment is important.

Most of the Chinese students implied that they recognised what kinds of behaviour they ought to do – a latent repertoire of recycling, saving energy, not littering, and so on. It was being in proximity to others within a community of practice which led them to draw on that repertoire and actually do what they knew they ought to. Kinzig et al. (2013) boil down the meaning of a social norm to be 'I wouldn't want others to think I am the kind of person who litters' (p. 166). Exactly who those 'others' are is crucial. In one practice community it may be acceptable to litter, in another it may not. Our sample of Chinese students in the UK spoke about instances of pro-environmental behaviour where the community of practice would have included British and other Western students in communal moments – for example, in shared halls of residence, on university campuses with peers – where they may have unreflexively adapted their habitus to their new field.

It is, however, important to note that pro-environmental attitudes might have been cultivated during the Chinese students' time in the UK, but were not detected in this study. This might be because they either lacked the vocabulary with which to express it in the discussions, or because such pro-environmental attitudes were 'absorbed' without reflection. Taken at face value, the focus group discussions do seem to corroborate

previous research suggesting that norms of conformity are often far more powerful than pro-environmental norms in activating pro-environmental behaviours (Hargreaves, 2011; Kinzig et al., 2013; Shove et al., 2012).

Discussion

We are able to arrive at some conclusions regarding our research questions. First, we illustrate how environmentally impactful practices are understood and performed by Chinese and UK students in their own countries. While pro-environmental attitudes were apparent among both students in China and in the UK, pro-environmental behaviours were reported to be more common among UK students. The materials, and especially the competences and meanings surrounding pro-environmental practices present in the British students, were often absent in the Chinese sample. This may be accounted for by long-standing differences in environmental values and notions of environmental responsibility between the two countries, for which Inglehart and Hofstede's models of cultural values provide useful heuristics. Future research is required to expand theories of practice to try and integrate differences in cultural values between countries, which this article identifies as relevant.

Second, our data indicate that the Chinese students who moved to the UK did change their environmentally impactful practices, at least those which they discussed (mainly recycling and energy saving), but this was largely done unreflexively, and largely because the elements – materials, competences, and meanings – associated with these practices enabled them to do so in the UK to a far greater extent than in their native China. Of these three elements, meanings – the cultural and social norms ascribed to pro-environmental behaviour – appear crucial. Our data suggest that changes in practice were due to Chinese students adapting to a new field where the dominant habitus of their communities of practice was transmitted by their British and non-Chinese peers. This mimetic, unconscious process appears to have been more influential than any normative engagement with issues of sustainability.

The findings have potential consequences for behaviour change and Bourdieusian theory. They add weight to Kinzig et al.'s (2013) assertion that 'social norms of conformity or co-operation are far more prevalent than pro-environmental norms, and so perhaps we should focus on harnessing these ... and if behaviours change, cognitive dissonance-avoiding may lead to pro-environmental norms' (p. 170). These findings show how both 'early' theories of practice (which have previously been applied to migration) and 'later' theories of practice (which have been applied to environmental behaviour change) can be combined to provide a useful framework with which to grasp how (environmental) behaviour change might result from migration. Despite the indicative findings of this study, longitudinal research would be required to test Kinzig's assertion and to see if migrant students' habitus (in relation to the environment) really does adapt to their new field, and to investigate whether mimesis can be the basis for a sustained change in practices. This may lead to a reappraisal of Bourdieusian theory, particularly the assumption that habitus is resistant to change.

Caution should be exerted when interpreting these qualitative results, as our samples of UK and Chinese students may not be representative of other students, or of the wider

national populations, as even some of our participants themselves noted. Further longitudinal research is warranted into how Chinese students continue to think and act once they return to China after their period of study abroad, and whether these changes in behaviour are a temporal 'blip', or the beginning of a longer lasting behavioural and attitudinal adjustment. If we accept that all three elements of practices need to be in place to achieve behavioural change, then we might assume that the changes will not persist. This remains an empirical question. Moreover, Nowicka (2015) notes the capacity for migrants to 'transmit' the new attitudes they have learnt within a host field, along their transnational networks, and to their home communities. The scope for and power of such transmission might be greater for Chinese student migrants who, after their period of study, may go back to form future social, economic, and political elites in their country. As Heusinkvelt (1997) notes, the greatest shock for migrant groups is often when they return home and realise how much their norms and behaviours have changed during their sojourn. With around 60,000 Chinese students coming to UK universities every year, and many more studying in other Western universities, this group might have a pivotal role to play in a future which is greener for China and the wider world.


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