Storytelling as oral history: revealing the changing experience of home heating in England.

Barry Goodchild, Aimee Ambrose and Angela Maye-Banbury (Sheffield Hallam University)

Abstract

Oral history provides a means of understanding heating behaviour through encouraging respondents to articulate the past in terms of stories. Unlike other qualitative methods, oral history foregrounds the ontology of personal experiences in a way that is well suited to revealing previously undocumented phenomena in the private world of the home. Three types of change may be distinguished: long term historical change, change associated with the life-cycle stage of the individual and sudden change. A sample of eight in-depth interviews is used to demonstrate the potential of oral history in the study of home heating. The themes to emerge from the interviews include early memories of the home, the financial struggle to heat the home, the influence of childhood experiences in adulthood and the association between warmth and comfort. For the future, domestic comfort, energy conservation and carbon reduction need to be reconciled with one another.

Keywords

Storytelling: Oral history: Home heating: Domestic energy.

A distinction may be drawn between three, complementary types of storytelling. Throgmorton (1996) and Rotmann et al (2015) amongst others have advocated various forms of persuasive storytelling that help communicate policies to others and, in doing so, generate a consensus for action. In the evaluation of new build and energy retrofit schemes, Janda and Topouzi (2015) and Topouzi (2015) have argued for 'learning stories' that might draw on examples of success and avoid mistakes. Finally, a third type - and this is the interest here – comprises the personal stories of individuals that may be collected to create oral history.

The aim is to provide a 'proof of concept' of oral history in energy research, that is to say a demonstration of its feasibility, validity and usefulness. The aim is, therefore, not just to demonstrate the methodology, but to show how oral history can be used to illuminate issues.

The story extracts relayed here relate to the experience of home heating in England and more broadly the United Kingdom. Heating is a basic necessity of life in the UK and the other countries of northern Europe. Heating, and specifically space heating, also accounts for 'by far the biggest slice of UK household energy use', between about 60 and 68 per cent in recent years, depending on the severity of the winter (Palmer and Cooper 2014, 35). Oral history methods and their analytical

frameworks are, nevertheless, of potential international relevance and may, in principle, be applied to domestic energy use in other countries, including those with a warm or hot climate. The themes in the stories may well be different, but the method can still be applied.

Other researchers are, at present, using oral storytelling methods to illustrate and engage the public in histories of the use and exploitation of energy by local communities in the UK.¹ 'Coal fires, steel houses and the man in the moon', by Darby (2017), published in this same special edition, has a similar theme in revealing the story of a local experiences of energy transition. In addition, public engagement is a theme in large-scale storytelling exercises undertaken by the mass media, for example by the US National Public Radio ² and the British Broadcasting Corporation. ³ However, searches undertaken by the paper's authors have not identified any comparable study, in the UK or elsewhere, using storytelling and specifically the methods of oral history to investigate heating as an aspect of the history of the home.

The paper is divided into three main sections:

First: an explanation of the advantages and distinctiveness of oral history;

Secondly, a review of the themes that might be expected to arise in the stories of respondents; and

Finally an analysis of the accounts given by eight respondents.

Why storytelling as oral history?

Oral history is an extension of various qualitative and survey research methods that seek to capture previously undocumented phenomena in the private world of the house and home- a world that technologists, designers and energy researchers can struggle to access (Stevenson and Leaman, 2010). However, unlike other studies that have used qualitative interviews or quantitative survey methods to assess people's perceptions of their fuel consumption (Brandon and Lewis, 1999; Hargreaves and Burgess, 2010), storytelling foregrounds explicitly the ontology of personal experiences. The first person narrative form is intended to allow the

¹ http://www.open.ac.uk/researchcentres/osrc/research/projects/stories-of-change (consulted August 2016)

² http://www.npr.org/series/4516989/storycorps (consulted December 2016)

³ http://www.bbc.co.uk/ww2peopleswar/ (consulted December 2016.

interviewee to frame his or her unique and personal account of past events free from any prescription imposed by the researcher.

Moreover, the relational and temporal nature of oral testimony awards a voice to those whose accounts of events that have become marginalised over space, place and time (Casey and Maye-Banbury, 2016; Maye-Banbury, 2016; Perks and Thomson, 2015). Oral history gives a voice to those who are otherwise not heard and has the potential to reveal undisclosed individual, cultural and subcultural memories relevant to fuel, energy and temperature within the domestic realm. Oral histories are not intended to provide a replacement for stories of global climate change or stories of policy and technological innovation. Oral history is a means of providing subjective, personal narratives as a complement to other histories and to other sources that deal with 'facts' (Portelli 1981). Oral histories provide a rich data source that enables reconstructions of personal and local impact to rise to the foreground, so allowing for individual idiosyncrasy and social diversity. Most likely a combination of methods is necessary to tackle the major policy issues in energy.

In pursuing a combination of methods, the researcher may therefore still triangulate accounts of recounted past experiences with other sources, other types of history and other methods of survey research. But most significantly, the method of oral history allows the researcher to consider why the story was reconstructed and indeed 're-presented' by the interviewee in that particular way (Kohler-Riessman, 2000). Gadamer's (1989, 302) characterisation of oral history as a 'hermeneutic conversation' is instructive in this context in that it reiterates the proposition that it is the intended meaning which lies behind the words which merit our attention as much as the actual words themselves. In a storytelling interview, through dialogicality, both interviewer and interviewee create what Frisch (1990) describes as a 'shared authority' of previous events (in effect a newly constructed representation of the past) from which new insights regarding individual and collective memory may be construed.

The experiential aspect of storytelling means, in addition, that it is well-suited to reveal both sense of place (Feld, 2005) and architecture. The home, like other forms of building, offers a sensory space (Erwine, 2017). The methods of heating in the home create, moreover, a specific set of sensations that are commonly incorporated into enduring memories within the domestic sphere. The aroma of coal fires in the UK (Rudge 2012) or in other European countries of turf, peat or wood serves to

stimulate a 'Proustian' rush of involuntary memories (Hamilton, 2011; Maye-Banbury and Casey, 2016) and so helps stimulate unique representations of time and place (Ritchie 2011: 228). Likewise, memories of dampness and cold may say serve to summarise the experience of living in poor quality accommodation at particular times in a person's life.

Memory is a basis for perception, but is commonly taken for granted. In the words of Merleau Ponty ([1945] 2005, 23): 'No sooner is the recollection of memories made possible than it becomes superfluous'. Oral history enables the reconstruction of memory. The narrator, in the role of protagonist, becomes what Seremetakis (1993: 14) characterises as a 'sense witness' and, by recounting his/her story, is empowered to reunite and reflect upon fragments of the past.

Furthermore, the benefits of storytelling are far from abstract. Given its inherent and universal capacity to provide 'strategies to deal with situations', storytelling is, in the characterisation of Burke (1973: 293) an 'instrument for living'. Learning how people have coped and adapted in a given situation reveals possibilities for others seeking to negotiate similar scenarios.

Some care is necessary, as historians disagree whether history allows either firm, contemporary lessons or predictions about future. Elton ([1991] 2004, 22), for example, suggests that the study of history is 'to free minds from the bondages' of so-called scientific behavioural laws and that this necessarily means breaking from views of history as providing distinct lessons. Elton's objection to history as learning is only applicable if the story amounts to an end point. The objection disappears if storytelling is treated as the start of an open-ended learning process, itself triggering further learning and analysis.

Storytelling, heating and the home

The memories incorporated in oral history appear as moments of stability. They are timeless and absolute, whilst history is about relative differences (Nora 1989). However, the typical contrast between past and present also allows the accounts of respondents to unfold events over time and to explain how and why life changes. Much depends, in this context, on timescales and the character of change. Three overlapping types may be distinguished in relation to heating and more broadly to energy use. These are:

- long term generational change;
- life cycle change; and finally
- sudden change.

Long-term historical change

In a country with a relatively cold climate such as the UK, the long-term driving force for change can be summarised as a desire for more comfort in the home, with more rooms being heated to higher room temperatures in the winter. Technological innovations such as the adoption of central heating systems (Mavrogianni et al 2011) and the use of better quality, more insulated and air-tight building elements (Hong et al 2009), were led by domestic engineers, builders and manufacturers rather than by either consumers or architects. Gas fired central heating, in particular, was instrumental in allowing and encouraging whole house heating rather than the heating of specific rooms (Shipworth 2008). However, popular demand was itself a stimulus to innovation and responsible for the subsequent widespread diffusion of modern technologies of all types, as has been shown by Rybczynski (1987). Moreover, the trend towards higher temperatures is still continuing in the context of hard-to-heat properties. Improving the energy efficiency of the homes of lower income households triggers a so-called 'rebound effect' as the occupants find that they can afford a warmer home for the same outgoings in fuel payments (Hong et al, op cit).

Homes have gradually become easier to heat, so long as funds are available and for reasons that go beyond the immediate experience of the individual. For this reason, oral histories have to be supplemented by other, contextual accounts such as histories of architecture and technology. Equally, however, the contrast between the cold homes of the past and the warmer homes of the present are likely to both feature in personal accounts and inform the accounts of different generations. The memories of older people and the contemporary experiences of their children and grandchildren are a case in point.

Thermal comfort, the physical sensation of hot and cold is only one aspect, of comfort, however. Comfort is best considered as a generalised package of factors that exist as a whole as well as in relation to the parts (Rybczynski 1987, 217-32). Comfort extends to ease of use, convenience and the provision of adequate, useable space. Moreover, the introduction of central heating served to promote these other

aspects of comfort. Central heating enabled the use of all rooms in a house throughout the year, as was the main reason for its introduction into social housing in the 1960s (MHLG 1961, 3). In addition, being gas fuelled, central heating was a labour saving device, enabling the elimination of the dirty and sometimes heavy work associated with coal fires. Memories of the routines of making fires and of cleaning up the ashes afterwards are therefore likely to feature in the accounts of middle aged and older people.

Patterns of energy use and behaviour have commonly been conceptualised in terms of practice theory, an approach that has explicitly sought to understand the routines of daily life and the factors that change those routines (Shove 2004: Warde 2005). Practice theory emerged, in part, as a means of focussing on the 'material environment- objects, tools, devices and apparatus- and the implicit and explicit knowledge stored in them as central in the process of creating interaction, continuity and reality' (Halkier et al 2011, 6). It also arose from dissatisfaction with the limited ability of conventional micro-economics to explain the persistence or emergence of particular behaviour and consumption patterns (Maller and Horne 2011: Spurling et al 2013).

Practice, according to Schatzki (2002) has three organizing components – practical understandings, rules and 'teleoaffective' structures which are concerned with motivational factors, aims and values. Applications of practice theory to sustainable building and consumption by Gram-Hanssen (2010a) and Shove and Walker (2010) have also considered technology as, in effect, a fourth component. Change in any one element of practice, for example in the knowledge surrounding and application of technology triggers change in other elements. But change is likely to be slow and piecemeal, as other aspects of practice may promote continuity.

Practice theory offers a simple, flexible analytical framework for use in case studies, but is ambiguous as to the role of the individual. In some interpretations in energy research (Gram-Hanssen 2010b), the individual is completely disregarded in favour of collective trends and processes. Disregarding the individual causes difficulty in dealing with demand as a factor in the evolution of domestic technology. It is also contrary to the ontological assumptions of oral history, as constructed from the memory of individuals. Oral history assumes that, at least, in part the individual is a causative agent, more than a mere passive 'carrier' of behaviour patterns determined elsewhere.

Not all practice theories assume a passive individual, however. De Certeau et al (1994) dispute any idea of standardised mass consumption in favour of the repeated and varied invention of daily life, albeit with reference to cooking rather than heating. Moreover, as is suggested in the related socio-cultural approach of Stephenson et al (2010), it is possible to use the various aspects of practice as a framework for understanding the behaviour of individuals as active creators of meaning and, within limits, active creators of the world around them.

Life cycle change

Stories offer a means through which people make sense of the world and make sense in addition of their own life, both to themselves and others. Patterns of energy use and their associated life-styles depend, in part, on the position of an individual in the life cycle. As Garabuau-Moussaoui (2011: 494) explains in a French study of storytelling and stage in their life-cycle: 'Children, teenagers, young people, working adults and senior citizens do not have the same needs and lifestyles, and therefore, the same energy consumption patterns'. To substantiate and demonstrate the variation, a survey of 249 dwellings in Leicester (Kane at el 2015:831) found that

'Households where the oldest person was just 20 to 29 tended to have the heating on later in the year and to turn their heating off more frequently. Those over 60 had their heating on earlier in the year and heated for longer each day.'

Stage in the life-cycle may be operationalised and simplified as age, as was the case in the Leicester study. But significantly, stage in the life-cycle refers to the awareness of the self at different ages, articulated in relation to a biography and to knowledge about the lives and expectations of significant others, especially to family members and partners (Stack et al 1994).

Furthermore, life-cycle stories have a phenomenological dimension. As unique personal narratives, they are about the world as it is encountered. As such, they benefit from a methodological approach that, in accordance with the principles of phenomenology, seeks to reduce a phenomenon to its essentials. Examination of personal stories facilitate a review of the phenomenon in its own terms, creating a dialogue between practical concerns and the lived experience of individuals (Alvesson and Sköldberg, 2008: 76-78).

Put like this, phenomenology looks obvious, even trite. In terms of the history of social philosophy, however, phenomenology represented at the time of its emergence in the early 20th as a distinct break from previous ontologies. Whereas conventional Western philosophy separates the subject from the object and, in doing so, implicitly assumes that the object of research is always knowable, phenomenology insists on both the unity and diversity of human experience as encompassing both the subject and the object.

The phenomenological approach is particularly appropriate because of the association of the 'domestic' with the home as a particular aspect of the lived environment. For example, Bachelard ([1958] 1994: 14), saw the home 'as a metaphor for the imagination' (Stilgoe, 1994). The home, by virtue of its close association with the self, offers a rich source of imagery and a source of understanding reality through images and metaphor. Bachelard used published poetry as the raw material for his analysis and sought to interpret the home through Freudian psychology. Marcus ([1995] 2006) has likewise used Jungian psychology. Both Freudian and Jungian psychology are clearly controversial and partly contradictory. However, it is not necessary to accept the full implications of either to concede that memories of the home are fundamental to a person's sense of self or more generally, that memories and the sense of self are tied to places (Marcus 1992). The reference to images, representations and routines is likely, therefore, to reoccur in stories of domestic heating.

A contrary position must be considered, however. In opposition to phenomenology, or at least in opposition to its emphasis on the experience of the individual, Bourdieu has prioritised class and social structure. The home, for Bourdieu, is part of a person's 'habitus', to which the home is, in any case, linked linguistically through the idea of habitat and that refers to persistence of similar practices (or patterns of behaviour) amongst people in a similar socio-economic situation. Habitus, according to this latter definition, is a consequence of social structure: 'a set of acquired characteristics which are the product of social conditions and which, for that reason, may be totally or partially common to people who have been the product of similar social conditions' (Bourdieu 2005: 45).

Habitus so defined is based on a combination of cultural capital (for example educational levels) and economic capital (including status in the labour market) and, in this latter case, is generally considered an aspect of class. The emphasis on class

is open to challenge by those who examine life-styles, routines and consumption in the context of gender and ethnicity. Stage in the life-cycle is, moreover, yet another factor that is at least semi-independent of class. Gender, ethnicity and stage in the life-cycle all bring to the fore the subjective orientation of social actors in a way that a focus on class, pure and simple, denies.

In any case, the concept of 'habitus' is not confined to the impact of social structure and class. For Husserl, for example, ([1948] 1973: 122), the founder of phenomenology, previous experience continues 'in the form of a habitus, ready at any time to be awakened anew by an active association'. Habitus as conceived by Husserl is therefore a product of a person's biography as represented by a life experience that is part taken-for-granted and part self-consciously remembered (Frère 2005). Likewise, Bachelard ([1958] 1994: 14) uses similar language in analysing the house, above all the childhood house as a 'group of organic habits' that persist in later life. As a result, interpretations of phenomenology do not exclude the possibility of individuality or of conscious thinking reflecting on and either refining or changing habits and routines. Bachelard (1994: 67) comments 'consciousness rejuvenates everything, giving a quality of beginning to the most everyday actions'.

Learning, consciousness and rational decision-making are therefore, consistent with habitus. The question, one that is not capable of resolution in theory, is to determine the balance between the meanings of habitus - biographical habitus on one hand and structural habitus on the other. Full integration of the two meanings of biographical and structural habitus is probably impossible. Nevertheless, it is possible to conceive of individual decisions as 'situated', emerging from the conditions of daily life whilst also reflecting broader influences (Wilson et al 2015).

The ambiguities of habitus may moreover be applied to the ontological ambiguities of practice and practice theory. Individual reasoning is compatible with routines and habits and may be used to modify practices, but not in a way that is merely the product of rational, economic decision-making. Rational consumer behaviour exists but only in relation to a cultural framework that is learnt. Various styles of home décor have, for example, long been associated with comfort, without serving any obvious practical purpose (Rybczynski 1987). For this reason, energy saving technology has to be 'domesticated' (Aune 2007), that is to say brought in line with daily activities and cultural expectations, if it is to be widely accepted and so have a permanent impact in reducing domestic energy use.

The impact of sudden change

The final type of change, sudden change, is associated with moving home and with making upgrades to an existing property. Change may be sought after; or it may be imposed, as in the case of eviction or through the existence of limited alternatives. In social housing, in particular, tenants are only offered a limited choice.

The stories associated with a sudden change may be analysed through a previous study by Goodchild et al (2014). The experience of moving into a new home drew attention to the various elements of practice theory- technology, the practical understanding of that technology and the motivation of respondents. At the same time, the move to a new home and the use of qualitative interview methods triggered a degree of self-conscious reflection of their home as a reflection of their personal and social identity. The use of video as a research instrument, no doubt, encouraged a concern with identity. However, the identity of the story teller is also a typical theme in personal narrative construction (Kohler-Riessman, 2000). Moreover, aspects of the interview asked the respondents to present a story of a particular episode in their life, namely how they had come to live in their present home.

Indeed, the narratives were so elaborate that, in some cases, it was possible to classify their accounts through the archetypes used to classify literary works, above all, 'romance' and 'tragedy' (Glaeser 1998). Romance means the process of discovering that another, better life-style may be possible. Tragedy, in contrast, involves a narrative of loss and decline. Tragedy may have a romantic element at the start, but ends inevitably in disappointment or catastrophe (Frye 1957, 162). Disappointment does not, moreover, necessarily refer just to heating or energy. As in the concept of comfort, users judged their home and its surroundings as a package, including its appearance, design and layout (Goodchild et al 2014).

The 'learning stories' of Janda and Topouzi (2015) and Topouzi (2015) are an attempt to bridge the gap between the promise of energy innovations and the varied performance of practice and, as part of this, an attempt to avoid the polarised presentation of 'hero' and 'horror' stories. There is an overlap between learning stories, oral history and the use of literary categories as analytical frameworks. Moreover, the reference to 'horror' stories again reveals the strength of feeling when people talk about their home. When encouraged or allowed to do so, respondents will talk about their home as though they are talking about themselves and will describe their home in colourful, emotive language.

The various aspects of practice theory; the images, reported experiences and reflections of phenomenology; and the extended narratives of the home as identity therefore provide the raw material for stories of domestic heating. Equally, the various aspects of the home raise questions about the balance of different forces driving changes, about the relative usefulness of concepts of biographical and structural habitus. Regard for the home also raises issues around the impact of identity and more broadly of design on levels of consumer acceptability when occupying low energy housing.

An illustration of the storytelling method

The primary data underpinning this paper was generated from eight in-depth interviews during which oral history techniques were used to elicit and explore memories of home heating from first memories of home to the present day. The sample size, though very small in relation to mass media exercises in public history, is sufficient for a study such as this that seeks to demonstrate the validity of a research method.

Participants were primarily sourced through advertisements and snowballing techniques. There was no sampling strategy, merely to build an account of the heating histories of a small group of people with varied backgrounds. Of the eight respondents, three were women and all were aged in their thirties, forties or fifties. All were currently economically active. Due to the location of the researchers, seven of the respondents currently lived in Yorkshire or the north Midlands but had grown up in different locations including Ireland, Wales and rural Suffolk. Four had grown up in mining communities; two in farming communities and two in cities. Some had grown up in what they would consider poor households (three) and some were more affluent. This variety of background enabled exploration of a range of different scenarios in terms of fuel types and heating practices.

In keeping with the oral history techniques informing the project, the interview schedules guiding the interviews were kept deliberately loose in order to afford respondents the space to speak freely and explore their memories. In preparing the schedule, the authors drew on their previous research and combined three main sources- a qualitative assessment of an estate improvement exercise (Hickman et al 2011); a qualitative study of the experience of living in innovative 'eco-homes'

(Goodchild et al 2014); and finally a housing pathways study using the oral history method (Maye-Banbury & Casey 2016).

In order to stimulate the conversation, interviews generally began by inviting respondents to share their earliest memories of home. Most respondents needed little encouragement from this point to share their memories and being aware of the focus of the project, focussed with little prompting on memories associated with heating and keeping warm. Where necessary, prompts were used to delve deeper into particular memories and events exploring details like fuel sources, fuel costs and recollections of smells, sensations and emotions. Respondents were also encouraged to recount - in broad chronological order- their experiences of the homes in which they have lived and their heating experiences within those homes.

Early memories of the home

Most interviews began by asking the respondents about their early memories of home. This usually took respondents back to early childhood and frequently to specific moments in particular rooms they recalled. Although no reference was made to heating in this opening question, accounts of these early memories often involved descriptions of heat sources and reflections on the level of warmth in the room. The memories shared by many of those interviewed generally focussed on specific rooms which endured in respondents' minds either because they were very warm or very cold.

When asked about his early memories of home, John- now in his fifties- was transported back to Ireland in the early 1960s where at the age of two he was in the living room of the family home (a flat above his Dad's dental surgery). For him, that room was defined by the coal fire and grate. His memories of the flat, where he lived until the age of five, were not fond due to his recollection of the flat as damp, uncomfortable and hard to keep warm. There was also an emotional dimension to this memory, and John recalled how the cold flat made his mother unhappy.

Elaine, also now in her fifties, recounted memories of one room in the small cottage she shared with her parents. She recalled how the coal fire burned brightly at night but never in the day. Another respondent, David (now in his late forties) recounted a very specific memory of sitting and eating by candlelight in the early 1970s when power was being rationed due to a national shortage of coal.

Common across the accounts of all respondents now in their forties or older (6 of the sample of 8), is the practice of focussing resources on keeping just one room of the home warm and thus creating a stark contrast between the temperature of that room and the rest of the house. As David observes, the decision or imperative to focus on heating one room of the house impacted on the way the home was usedcausing the family to spend more time together in one space.

"There was a room which was the kind of the key room that people spend most time and you know it was cosy in itself but the rest of the house wasn't cosy in the middle of winter, most of the time it was fine but people didn't use space in the house in the way that they do now, particularly in winter when you wouldn't sit around in your bedroom. It would be too cold, so you would be down in the warm room. Everyone would have been in the dining room with the sofa. The TV was in there. We'd eat our meals in there, it was a kind of hub of the house."

Elaine has similar memories of one room forming the nucleus of the home:

"The fire was always burning bright at night. In the day we never really had a fire so it was quite cold. Upstairs we had a couple of fireplaces but we never had a fire in them, so it was always cold upstairs. We always lived in there and we did everything in there, we had everything, we had a fold up table and that came out for meal times and we ate on that because it was always the warm room."

It is noteworthy that both David and Elaine make reference to the 'warm room', suggesting that the warmest room in the house had some sort of prized status.

Warm rooms are nice rooms

A recurrent theme to emerge across the interviews was the idea that warm rooms were regarded more fondly than other rooms. Warm rooms were described as sociable spaces, possibly because they were warm and therefore enjoyable to spend time in. It is also possible, of course, that the most inhabited rooms were those that were prioritised for heating.

Three years after his first memory, John's family moved to a much larger period property with a large Esse range installed in the kitchen. The Esse, as it was known,

kept the kitchen warm at all times and thus that room became the focal point for the whole family and the site of some of John's fondest memories of his childhood home:

"The Esse was always on which meant that the kitchen was a lovely, comfortable place. We'd eat our meals in there and friends came round, you know...it was just very sociable and an absolute focal point."

John remembers the warm kitchen as a place of entertainment and storytelling and a comfort during difficult times, which added to its appeal:

"I remember Dad coming in and just sitting down on a chair in the kitchen and telling stories about getting impacted molars out and stuff like that, it was just...it was a warming place, even when things were a bit....we were always quite happy in there."

It is difficult to disentangle from John's account, the extent to which it was the warmth of the room or the happy times that played out there that underpin his fond memories. He does, however, use interesting discourse here, describing the kitchen as a 'warming place', suggesting perhaps that it was the sociable nature of the space that created a sense of warmth rather than the temperature itself. Nonetheless, it seems likely that the relaxed and sociable atmosphere in the kitchen was aided and encouraged by the warmth and comfort of the range.

John returns to the idea of spaces offering a sense of (emotional) warmth, a sensation which seemingly transcends the physical temperature of the room when reflecting on his residential experiences of a shared house in Leeds in his twenties:

"I had the attic which didn't have central heating but in terms of heating I wasn't worried and it was lovely and big and comfortable and I had my books and stuff so it was warm enough."

For Elaine, the correlation between the warmth of the room and the positive feelings evoked when recalling that space was clearer. For her, a warm room is a nice room.

"When you got cosy in there it was just really hot which was really nice."

Warm rooms, particularly those heated using a coal or wood fuelled fire or burner were often recalled as a sensory experience with many respondents reflecting on the comforting smells generated by the fire. Respondents were more likely to have experienced fires in their childhoods (although many were now returning to them, as will be discussed). Therefore the smell of burning coal or wood often had a strong association with childhood and provided the backdrop to childhood memories. Peterwho grew up in rural Suffolk- remembers the smell of wood smoke infusing the cottage:

"It was a nice smell. I always remember that, coal or wood fire makes quite distinctive different smells with wood being a nicer smell, yeah it kind of infused the house with a good smell."

For Elaine, warmth had a smell of its own: "The room where we had the fire smelt of soot and sort of you know, of heat really."

Going up to bed

Given the dominant practice of heating only one room of the house, respondents widely recalled how going upstairs to a cold bed was something they dreaded.

"I guess, you never really thought about it, you just thought it was cold so you'd run upstairs as quickly as possible, go in the bathroom which was freezing and get undressed, clean your teeth and jump in." (Jane)

As the quote from Jane illustrates, it was often only in comparison to the comforts of modern living that respondents realised how miserable it had been going to bed in a cold room. At the time, however, it was accepted as the norm.

For Peter and for Elaine, the drudgery of getting into a cold bed was alleviated by the advent of electric blankets, something that was considered a justifiable luxury by both sets of parents.

"I was probably I don't know 15/16 [mid 1980's] and it was suddenly like 'oh it might be a bit nicer if we had electric blankets' so there was a move. It was that thought that actually it would make life a little bit better." (Peter)

"We sometimes had a hot water bottle but not always but then we got very posh and we had an electric blanket. Yeah [laughs] me mum splashed out and got us all electric blankets so that meant you got into a really cosy warm bed then. It was more comfortable so instead of getting in and having the covers right round your neck and shivering so that you could get warm, you were already warm so I looked forward to going to bed." (Elaine)

As in daytime and in other rooms, a warm bed and a warm bedroom was just more comfortable and 'nicer'.

The struggle to heat the home

Of the eight respondents, five grew up in homes heated by open fire or range. Most recalled that it was not difficult to source fuel for the fire at a reasonable price. Peter's family used wood off the land surrounding their home; John's family wrote off the cost of coal as a business expense. Elaine and Jane grew up in mining communities and bought coal cheaply off miner neighbours who received it for free. But heating the home using coal was laborious - several respondents highlighted the daily drudgery of cleaning out grates and building fires.

"Because we had Parkray [coal fired central heating] we used to have to get up on a morning and it'd be freezing in the house because the fire had gone out and then you'd clean all the fire out then you'd start and light all the fire then you'd to wait a good 20minutes, half an hour for radiators to start getting warm again. And if we didn't light it on a morning before we went to work imagine all day of it just being freezing, you come home from work and you've got to start and clean all the fire out and light it." (Jane)

It was essential, particularly during the winter, to keep fires burning. So important was this task that it was often designated to a specific member of the household, who played out this key role in an almost ritualistic manner. In Peter's house, this role fell to his father.

"My father had a job where he would start work at seven in the morning so it was very much a kind of ritual of waking at six, having coffee or something then lighting a fire before he went to work. It was an essential task."

In Elaine's family, this task fell to her from the age of eight, once her mother went back to work and she felt the pressure that accompanied this role acutely: "I was the first one in at half past three then I had to light the fire so the house was always cold when I came in so I had to keep me coat on a bit. My mum would set it up and I just had to put a match to it and sometimes it went out and I'd think oh I'm so cold and I need to light the fire, my mum will be so cross. So I'd try another match. Then I get the shovel, put that up to the hearth and then put a piece of paper around it and then it would draw the fire. It was alright after about an hour when it started to get going but sometimes you know when you come home from school, you're sat on your own and it's cold, waiting for the fire."

She was also responsible for shovelling the coal into the coal house on the day it was delivered: a gruelling task that she resented.

"When I was about eight, a tonne of coal that been dropped outside, I had to get it in before my mum and dad came home from work so I had to shuffle the coal from where it was dropped into the coal house. It was hard work and I hated it. I mean, a tonne of coal is massive. It wasn't in bags - it was just dropped outside the back of a lorry so it was always in people's way so the quicker we got it into the coal house...so I used to come home from school and think oh God."

Memories of getting up in the morning to a cold home had also stayed with respondents. Nadia's childhood home where she lived during the 1980s was heated using only gas fires. Although it wasn't messy or laborious to get the gas fires going, it would take time to for them to heat the room. This led to a situation where she dreaded getting out of bed in the morning and looked forward to the warmth of school.

"You just don't want to get out of bed. You don't want to get out of bed because you know you have made it into a slightly warmer place and you know what you're going into. The less time spent at home, the better. I absolutely loved school. I really enjoyed being in a nice warm comfortable classroom, eating nice warm food, which everybody else complained about."

Once open fires began to die out as the main mode of heating the home and central heating become more widespread, different struggles presented themselves.

The pressures facing families in their attempts to keep warm at home became more financial and less practical in nature. Once living in the first home of her own (a modern flat) with a young child, Jane was poorly supported by her partner at that time and consequently struggled to pay her heating bills. Her fuel supply was disconnected. She had grown up in an environment where coal was affordable and plentiful and was suddenly faced with the high costs of an electric heating system.

"My partner at the time spent quite a lot of money on drink and so we didn't have any money for the bill so we had some notices to cut us off. I pleaded with them not to do it, but the guy came. I remember him coming, it's imprinted on my brain and I'd got [my son] in my arms and he came and I said 'please let me make a bottle before you cut it off'. So I did that and then I have to say my mum and dad coughed up because we just, well we didn't have any money."

This experience has never left Jane and shapes her attitude towards heating the home today. She is always frugal and sparing in her use of heating, despite being more financially comfortable these days.

"From then on, well it just made me feel sick to be honest and I just used to turn it off and put jumpers on and get wrapped up and then sometimes I would just go to bed to get warm. I do it now when I'm sat cold, I'm thinking this is utterly ridiculous just go and turn the heating on! And then I'll think, no, I'll wait another half an hour, wait another half an hour..."

Carrying childhood experiences into adulthood

It was very clear that for all respondents, their formative experiences had shaped and continue to shape their attitudes and practices regarding heating in adulthood. It was common for those whose parents had adopted a frugal approach to heating the family home, whether for practical or financial reasons, to carry those values into adulthood. Elaine and Nadia for example sought to be both sparing with the use of heating but were at the same time very keen to ensure that they had modern heating systems in their homes. For both women, a log burner was an essential investment allowing them to emulate old habits of heating one room using an affordable fuel source, or at least one that was pre-bought and therefore easily rationed. "But even now we've got central heating and a wood burner and we cut all our trees down and use our own wood, we don't buy it, I'm not doing that. So I get very conscious about not being able to afford heating and that relates to my past, definitely."

The desire to have a heat source as a focal point within key rooms has remained with many respondents. For example: in every house he has owned as an adult, John has installed a gas, coal or wood fire.

Other practices learnt in childhood also endured into adulthood, such as Nadia's routine of wearing lots of layers to bed.

"Yes, you wore lots of layers to bed and it's still a habit of mine now. I actually cover my head with my blanket, I still do it now because it's a habit from when I was younger, it was so cold that I always kept my head under the blankets and I still do."

Nadia was also aware that through her heating practices, she was shaping those of her daughter in the future:

"[My childhood] doesn't hold me back in any way. It just means that I think things through, I plan ahead and think about usage and when things can be turned off. I know I am passing this on to my daughter."

Whether a child follows the practices of their parents can only be demonstrated later in life. Nevertheless, the example of parents is likely to provide a model of behaviour and to show to children what they are supposed to do.

Conclusions

The contents of the various stories is conditioned, to an extent, by the characteristics of the respondent and their recent experiences. None of the respondents were interviewed at a time when they had experienced sudden change, such as moving into a different home, for example. The comments were all about long-term gradual change, about the changes experienced over the life-time of respondents and about the long-term implications of the habits learnt in childhood. The sample is also insufficiently diverse to reveal socio-economic differences by class, stage in the life-cycle or by ethnicity- matters that deserve more consideration in the future.

The comments of the respondents are, nevertheless sufficient to provide a 'proof of concept' of storytelling showing how the method works in the context of domestic energy use. The respondents provide vivid accounts of their heating histories, confirming the way in which memories are deeply associated with places (Marcus 1992), including with specific rooms in a home and not just with practices and events. Equally, the accounts reveal an appreciation of the home as a specific type of tangible, sensory place, full, for example, of memories of distinct smells and, in addition, as a setting for family activities. The previous practice of heating one room only, for example, more or less required all members of a family to congregate and eat together in the winter in a way that is now dependent on the wishes of family members.

The accounts appear outside of history (Nora, 1989), putting the speaker and the reader back in a particular time and place and showing how home heating evokes a particular feeling and use of space within the home. Looking back, the smells of the home and experience of heating have changed, however. Other than to say that warmth has its own smell, contemporary methods of heating have lost their distinctive smells. Together with the loss of manual work associated with coal fires, heating has become increasingly invisible and intangible.

The changes documented by the respondents are nearly all about technology, finance and daily routines. There is almost no reference to improvisation or invention of household practices. To this extent, the accounts support the concepts of structural habitus and of practice as a stable, collective concept. Life-styles are learnt in childhood and are conditioned by a mixture of family and resource influences. Heating practices are, according to this evidence, less open to improvisation and repeated innovation than the preparation of meals, as was the subject matter for de Certeau and Giard (1994) or other aspects of home life such as the choice of décor or furnishings.

Equally, however, the ability to think about the future, to think about consequences and to plan for the future is learnt. Individual consciousness in relation to heating arises less in improvisation and more in relation to how the respondents negotiated the dilemmas and tensions of daily life. For example, one respondent reported a personal dilemma every time she felt cold at home. She could afford to put the heating on but frugality was instilled in her from an early age. Frugality had become an ethic of daily life or 'teleoaffective structure' in the language

of Schatzki (2002). Other respondents, in contrast, had gone to great lengths to ensure their homes are equipped with effective modern heating systems and also with log burners for more direct heat and to provide a symbol of the hearth as at the heart of the home. Once the log burners were installed, however, the respondents seemed cautious in their use of them. The respondents had made consumer choices that were rational in relation to the decor of the home and their notion of domesticity, but not rational in relation to heating or other functional considerations. Whatever the details, however, oral history methods reveal the continuing influence of the idea of home and of comfort, just as much as the history of design and technology as undertaken by Rybczynski (1987).

For the future, domestic comfort, energy conservation and carbon reduction need to be reconciled with one another. How might this be done?

The ethic of frugality, of avoiding waste, as expressed by some respondents offers one possibility. Personal ethics and motivations provide a potential link between oral history, based on individual and family stories and the persuasive stories used to generate a commitment to action. The ethic of frugality might therefore be used as a basis for appeals in energy saving campaigns. Frugality has the advantage of appealing both to individual and family self-interest and to the broader public interest. The same combination of private and public interest may, moreover, also be used in campaigns to promote the uptake of 'green' products of all types. The existence of established practices does not exclude rational reflection by consumers.

Public appeals and the promotion of green consumption might not be enough, however. The assumptions of practice theory, as applied by Shove (2004) and Gram-Hanssen (2010b), suggests that any resulting changes in behaviour will be slow to emerge. The history of the home suggests, in any case, that concepts of comfort are deeply rooted in contemporary life-styles.

Another possibility, therefore, is to accept popular concepts of comfort as given, to introduce innovatory policies or technologies to reduce energy consumption and carbon emissions and to undertake evaluations of their impact in the form of learning stories. Existing examples of project and policy evaluation have shown the significance of looking at the interaction between people and their home (Topouzi 2015), at situated decision-making (Wilson et al 2015), at domestication as a necessary aspect of design (Aune 2007) and at the house and home as a source of

identity (Goodchild et al 2014). Oral history, as this study has shown, endorses these same considerations, whilst adding childhood experiences and biography as influences on life-styles and consumer expectations. The individual, the dwelling as a physical artefact and activity patterns have to be considered together and in a way that allows a consideration of the details of daily life.

Oral history is more than a method of research, however and more than an exercise in the evaluation of specific projects. By virtue of its focus on biography, oral history offers a potential means of public engagement and through public engagement a means of public learning. Demonstration of the usefulness and proof of concept of storytelling leads therefore to a final implication, that of breaking down the distinction between energy research, engagement and impact. There are various ways of doing this- for example through exhibitions, community events or the involvement of manufacturers. However, one suggestion might be to encourage mass media agencies to undertake a large-scale storytelling exercise tracing the history of heating or perhaps other forms in energy use and encouraging a reflection on the future of energy use in different countries. Broadcasters have already used storytelling methods for other purposes. Why not encourage them to use the same methods for heating and energy use?

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