

ARTICLE

"In the morning I just need a long, hot shower:" a sociological exploration of energy sensibilities in Norwegian bathrooms

Thomas Berker

Department of Interdisciplinary Studies of Culture, Norwegian University of Science and Technology, Dragvoll Campus, Trondheim 7491 Norway (email: thomas.berker@ntnu.no)

This article proposes a new area of research centered on the study of how energy sensibilities—in terms of esthesia which is understood as responsiveness and awareness—are distributed and redistributed. Energy is approached as a polyphonic concept with many meanings, of which none enjoys privileged status. Given this polyphony, the common observation that end-users have no idea (or wrong ideas) about their energy consumption loses importance. Instead, unevenly distributed ways of sensing and making sense of energy become the object of study. Drawing on the work of French philosopher Jacques Rancière, the article discusses contemporary distributions of energy sensibilities in domestic settings and how they have been redistributed during the previous two decades. Analysis of visual representations of bathrooms in the largest Norwegian interior lifestyle magazine and 600 real estate advertisements shows how a specific, resource-intensive energy sensibility has become dominant through a politics of refurbishing.

KEYWORDS: energy consumption, attitude measures, social organization, resource utilization, households

Introduction

Changing current ways of producing, distributing, and using energy is prominent on the sustainability agenda. However, like other resources such as water or air, energy is a highly abstract concept (Shove, 1997). For instance, the basic physical fact that energy cannot be created or destroyed, but can only be transformed, seems to contradict frequent discussions about its production and consumption. There is no contradiction, obviously, since some transformations of energy are more easily reversed than others. But these principles of thermodynamics, fundamental as they may appear to the scientist, are generally inaccessible to the vast majority of people using energy.

Heightening the challenge of understanding energy in everyday contexts, energy consumption within sustainability discourses is generally discussed on a highly aggregated level. Taken alone, individual use of fossil energy for purposes of mobility, for instance, is unproblematic. It is the pervasive ubiquity of individual cars that constitutes one of our current and most intractable dilemmas. However, the billions of cars in the global fleet today are an abstract aggregation, one that is "invisible" to someone who has no immediate access to mobility statistics.

I argue here that despite this invisibility and pervasiveness, end-users have clear notions of energy. Energy users experience energy on a daily basis immediately as heat, light, velocity, and physical resistance. These sensations coexist with more abstract notions, for instance, in energy bills. I propose a research agenda that explores the manifold ways of how energy is made "sensible," that is, how people make sense of energy, which sensations are connected to their understanding, and vice versa.

The first part of this article lays out the theoretical foundation of this agenda. I start with the common sociological insight that different ways of (not) sensing energy exist, and form patterns distributed unequally across social groups involved in different kinds of daily activities. These distributions are not arbitrary, but at the same time are not determined by social or economic structures. Rather, following the French philosopher Jacques Rancière's (2006) critique of Pierre Bourdieu, I assume that collectively enacted gaps exist between individuals' social positions and practices on the one side and how they perceive the world on the other. According to Rancière (2004; 2006), these cleavages are political in the sense that they contain opportunities for change.

In the second part of this article, I explore energy sensibilities as they are present in two fields: representations of bathrooms in a Norwegian lifestyle magazine and advertisements for Norwegian homes. In these representations, energy is invisible in the scientific, quantified, and aggregated form directly relevant for sustainability. However, widening the scope to include sensual aspects, the analysis reveals a specific way of presenting energy consumption as being at the core of a good life. I argue that this con-

nection has to be acknowledged in any attempt to change contemporary modes of energy consumption.

Sensing Energies

The history of the past two hundred years is a story of unprecedented explosion in energy use. In the 1960s, a large car in normal operation used as much energy as a sizeable American factory during the early nineteenth century (Nye, 1999) and this was seen by most people as a desirable sign of progress. It was not until the first oil crisis of the 1970s that "too much" energy consumption became a widely acknowledged societal problem. However, by that point in time virtually every daily activity in industrialized countries had become dependent on the consumption of copious amounts of energy, most of it derived from fossil fuels.

It is this outsized use of energy that is at the heart of everyday life in developed countries and is the main reason that it is necessary to turn to cultural and social research on everyday-life activities to understand changes in energy consumption. Already in the 1980s, scholars such as Richard Wilk & Harold Wilhite (1985) and Loren Lutzenhiser (1988) introduced alternatives to the kind of simplistic models of human behavior that disregarded this embeddedness of energy consumption in everyday life. Following these early examples, today a growing body of work is turning toward the study of practices (for an overview of the practice turn in consumption studies see Røpke, 2009). Energy consumption as part of practices, as Reckwitz (2002) defines it, is

[a] routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, "things" and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge.

Based on this definition, research on the energy dimensions of daily activities has explored showering (Hand et al. 2005), hygiene, laundering, and air conditioning (Shove, 2003), freezers (Hand & Shove, 2007), mobility (Shove, 2002), and heating (Kuijer & DeJong, 2011), among others. These contributions all describe practices in their genesis, evolution, and diffusion. By contrasting practices that are taken for granted and appear without alternative today with practices that once were equally common, deeply routinized activities can potentially become the subject of change again. Further, these contributions reveal how practices are embedded in a background consisting of other practices, discourses, and material

infrastructures that would have to change in concert to enable other practices to take hold.

The research agenda proposed and tested here complements these explorations of practices by adding a focus on how subjects sense energy practices in everyday life, how these sensations are distributed among subjects, and how they change. This approach is based on the assumption that a broad range of possible ways of sensing and making sense of energy exists, both in everyday life and in terms of energy's physics: as heat, as speed, as kilowatts per hour, and so forth. In both scientific and nonscientific discourse, energy, just as any other word, has a range of meanings. This is not a problem as long as the person experiencing a "lack of energy" in the morning does not confuse this situation with other uses, say, with respect to the fact that "domestic energy use is responsible for roughly one third of Norway's energy consumption." However, it becomes problematic, or rather, interesting, when the perceived lack of vital energy in the morning nonetheless leads people to take daily, hot, and extended showers, which then may contribute to a shortage of energy on a societal scale. In this instance, the two meanings of energy interfere with one other. People may not understand the first thing about the kind of energy that is quantified and aggregated on the societal scale, but nevertheless have "folk theories" about energy (Kempton & Montgomery, 1982; Kempton, 1986) that may be informed by the sensation of hot water on a cold winter morning.

How this relationship between the two meanings of energy is conceived depends on whether energy is understood in a monologic or a polyphonic way. According to Bakhtin's (1984) use of musicological terminology, a text is polyphonic when a story is told by many equally valid voices instead of one privileged narrator. Polyphony thus challenges the hierarchy of one denotation (intended by a single narrator) and many connotations (Barthes, 1975). If we, for instance, decide on the meaning of energy as something managed on a societal level (which could be called a technoeconomic sensibility, see Guy & Shove, 2000), we are likely to think that the use of the word "energy" to describe a bodily experience in a hot shower is mistaken. Thus, in a monologic approach, we already have taken sides in favor of a certain (desired) distribution of energy's sensibilities before we even have tried to understand which sensibilities exist in the first place.

The polyphonic approach that is used here is further inspired by Rancière's (2004; 2006) conception of how distributions of the sensible are changed within aesthetic practices. For him, uneven distributions of the sensible are a political question. He starts with the common sociological insight that what peo-

ple sense together, as well as what they cannot sense, is always related to their position in an organized system of roles. Bourdieu (1984), for instance, has described this system of tastes and preferences extensively and his notions of field and habitus is wellknown in contemporary social science. Rephrased in practice-theoretical terms, an agenda for studying energy's sensibilities based on this first premise would inquire about the distribution of different perceptions of energy and how they are connected to patterns of energy-related practices. In other words, the focus would be on how energy is made sensible (or insensible) for and by specific groups. This process would then produce a map of different "folk theories" (or "practices"), or, as Reckwitz (2002) articulates it, an overview of "routinized ways of understanding, knowing how and desiring" related to energy.

But Rancière does not mean to reduce sensibility to an effect that is singularly determined by social position and practice. Instead, he is interested in the possibility of politics, which he locates within the gaps between sensibility and social position. He quotes the description of a nineteenth century French worker who dreams of possessing the aristocrat's house in which he is laying the floor. The worker's changed sensibility, which in other aspects will still be restricted by his social position and practices, is making space for political actions, which in turn may, or may not, change his social position. Rancière (2006) impugns sociologists like Bourdieu for not being able to describe this "effective disjunction between the arms and the gaze" of the worker appropriately. The kind of politics that takes shape, based on the gap between his social position/practice ("the arm") and his sensibility ("the gaze"), is open. Neither are certain social patterns meant to be determined by specific sensibilities, or vice versa. However, a society in which sensibility is always identical with social position and practice, according to Rancière, would be a society without political change, because people could not even imagine themselves to inhabit a different position in society.

In the research agenda on energy's sensibilities proposed here, this theoretical twist introduced by Rancière leads beyond the still important precondition of mapping different sensibilities. However, one would have to focus on the gaps between social position/practices and sensibilities of energy—as they may materialize in a collectively enacted longing gaze, a dream of change, but also fears and idiosyncrasies—to explain change and changeability of energy consumption.

This approach reintroduces the notion of a subject who is sensing and makes sense of her or his actions in the empirical study of practices. But this is neither an atomized individual behaving according to external stimuli nor a sovereign actor. Instead, she or he makes sense of the world through practices that consist as much of practical arrangements, material affordances, and mundane routines as they are brimming with sensual and emotional immediacy.

Energy Sensibilities in the Bathroom

To test the potential of a polyphonic perspective on energy sensibilities and the interest in gaps between social position/practice and sensibility, I analyze the changes that have taken place in Norwegian stationary household-energy consumption since the 1990s. This energy use in Norway has been more or less stable since 1996. This is bad news for several reasons. Stabilization has occurred in the case of one of the largest (in per capita terms) electricityconsuming countries in the world. This development consequently means that considerable gains in energy efficiency have been offset by more energy intensive daily lives (for a similar observations regarding British households, see Simon, 2008). Even though there are no data on the level of the different rooms with different functions, certain aspects of domestic energy consumption are more likely to have contributed to this trend than others. One locale of domestic energy consumption that in a qualitative Danish case study was identified as contributing to rising energy consumption is the bathroom (Quitzau & Røpke, 2008).

A special methodological problem arises from the fact that domestic sensibilities are often performed hidden well within the household. The following empirical exploration is based on two notable exceptions. First, a public exhibition of domestic sensibilities happens when homes are bought and sold. And second, sensual qualities of domesticity are extensively discussed in lifestyle magazines. The following discussion analyzes the energy sensibilities present in Norwegian bathrooms from these two angles. Accordingly, a content analysis was carried out of all issues of the largest Norwegian interior design and lifestyle magazine, Bonytt, published between 1990 and 2008. The magazine addresses private homeowners and claims to have more than 300,000 readers (quite commendable given that Norway's population is only 4.7 million people). The qualitative analysis focused on visual representations of bathrooms, including image captions, and selected editorials that explicitly address bathrooms. The ma-

¹ The research presented here has been conducted together with Helen Jøsok Gansmo as part of the project Paradoxes of Design funded by the Norwegian Research Council within its Fri prosjektstøtte (FRIMUF) program [Independent Projects].

terial was first coded openly (adding categories as they were found), then axially (establishing relations between these categories), and then selectively (around the previously identified core categories). In addition, I analyzed 600 real estate advertisements published during October 2007 on FINN, a website geared to Norwegian consumers.² Here, the analysis was conducted by counting word frequencies and word co-occurrences found in the complete text corpus extracted from the advertisements (Callon et al. 1983).³

It is reasonable to assume that lifestyle magazines and advertisements, at least to a certain degree, aim at reproducing existing sensibilities because they want to communicate meaningfully with their readers. However, it would be naïve to approach them as simple depictions of users' ways of sensing energy in their bathroom. Both are carefully edited products that serve a variety of motivations, of which selling things is the most obvious one. Thus, when the magazine displays photographs of, for instance, the bathroom of a particular architect, it always conveys a double message. On one hand, the aim is to communicate how the bathroom of the featured architect is designed and, on the other hand, to convey how readers' bathrooms could look if they were to purchase a specific set of highlighted products. The same applies to the advertisements, which typically consist of sober descriptions of the object in question ("Two bedrooms," "kitchen from 2006," "balcony," "located 20 minutes from the city center," and so forth), but which also frequently use normative and evocative images ("very attractive," "located at popular Øya," "nice, new kitchen"). Again, the message is doubly loaded: "This is how the flat for sale looks" and "This could/should be your flat!"

In terms of energy sensibilities, this ambivalence of the source material opens a second layer of analysis, one in which the question is no longer just which kinds of energy sensibility are dominant, but what indications exist of gaps between these representations and the users' energy-sensing practices. Exploring the latter intention can provide useful insights about an ongoing politics of energy sensibilities.

Mapping Bathroom Energy Sensibilities

If energy is mentioned explicitly, it is most often connected to "consumption" (energiforbruk, only nine mentions in 600 advertisements). Analyzed for words used frequently in close proximity, energy

consumption is often related to "economy" ($\emptyset konomi$), the qualifier "modest" (beskjeden), and the abbreviations "ca." (circa) and "kWh" (kilowatt hours). The lifestyle magazine similarly had few references to energy, with two descriptions of toilets that conserve and recycle water as the only mention of resource use at all. Thus, in terms of energy sensibility, it can be stated that "energy" as a word is mostly absent. If it is used in the advertisements at all, it is clearly connected to an economic and quantitative understanding.

According to the extension of energy into the realm of senses, however, this does not mean that energy is absent in all its manifestations. The energy-related qualities of the technologies and spaces that are represented in the material include hot water, large heated spaces, and warm floor tiles as the most relevant elements.

Visual representations of large volumes of hot water especially dominate the bathrooms pictured in the magazine. The images have changed over the course of the several decades studied here, moving slowly from whirlpools to large showerheads ("jungle showers"), but the underlying aestheticization of (a lot of) hot water that covers the body remains stable. In addition, almost all bathrooms featured in the magazine have ceramic floor tiles, which, given the Norwegian climate, are only feasible in conjunction with underfloor heating. These observations are supported by analysis of the advertisements that express a very positive connotation of warm floor tiles. Viewing all of the advertisements as a group, the energetic quality "warmth/heat" (varme) appears frequently, together with "completely covered with tiles" (helfliset), "bathroom floor" (badegulv)—only matched in frequency by "summer days" (sommerdager), "heating" (oppvarming), "radiator" (radiator), and the positive qualities "nice" (hygge) and "good" (god).

Both the magazine and the advertisements present large bathrooms as an asset. Behind other more generic qualities (like "good" and "new"), "large" is actually the most frequent qualifier used in the advertisements (593 instances). Analyzed for co-words, the advertisements relate the quality of being "large" (stor) to all kinds of rooms, including the bathroom. The dominance of images depicting free flows of hot water, heated ceramic floor tiles, and spaciousness produces a compelling picture of a specific collective energy sensibility connected to Norwegian bathrooms, which is particularly powerful because of its mutually reinforcing character. The sensation of walking into a large room barefoot on warm tiles and splashing great quantities of hot water on a naked body produces a strong image of indulgent hedonism based on high energy consumption in the bathroom.

² See http://www.finn.no.

³ The analysis was carried out using the software package Automap developed by CASOS at Carnegie Mellon University. Assembly of the text corpus was conducted using the PERL modules Lingua::Stem::No and Lingua::StopWords.

Gaps and Imminent Changes

The longitudinal study shows that Norwegian bathrooms have only gradually become objects of collective sensibility. In the 1990s, bathrooms were still significantly underrepresented in visual portrayals of interior designs. As was also observed in the Danish study (Quitzau & Røpke, 2008), after around 2000 they became publicly exposed and sensibilities connected to these spaces have become discussed frequently.

For instance, in a special issue on bathrooms published in 2005, the editor of *Bonytt* expounded,

I have many ideas for the bathroom of my dreams...The bathroom can be everything from a room for teeth brushing to a room for relaxation. Or both. Definitively it is a room where many want to realize their interior dreams (Kolberg, 2005; author's own translation).

A reading of these sentences inspired by Rancière would focus on the tension they construct between teeth brushing and relaxation. In this juxtaposition, the brushing of one's teeth is easily recognizable as a representation of a mundane daily task, while relaxation describes a positively connoted regenerative activity. In this tension, the editor claims, everything goes, and dreams can come true.

But how exactly has the bathroom become the place where dreams can come true? Two years earlier, the editor wrote:

The kitchen is still the room which best reflects people's daily lifestyle, but if you want to measure the spirit of the times you have to look to the bathroom. That is where the new things happen, with a completely different weight than before being placed on furnishing and design (Holte, 2003; author's own translation).

This observation makes the claim that the bathroom is the locale where change is happening. Complementing this sense of change, during the second half of the 1990s and the early 2000s, the magazine regularly published articles that focused on how to refurbish outdated bathrooms in a do-it-yourself fashion, featuring all the elements described above: ceramic floor tiles, floor heating, and large bathtubs.

In the editor's quotes and the articles on do-it-yourself refurbishing, a gap between existing and represented bathrooms is implicit: that bathrooms have to *become* like the ones represented implies that they are not like that, yet. If we reflect on Rancière's worker discussed above, it is easy to picture the read-

ers of the magazine dreaming of splashing hot water on warmed floor tiles in a large bathroom, while sitting in their old-fashioned and frugal existing bathroom. Consistent with Rancière, the question may now be asked, what kind of politics resides in the gap between the glossy bathrooms, the sensations they promise, and the real bathroom. The magazine's answer is simple: it is a politics of refurbishing.

Looking for a complementary gap in the energy sensibilities identified in the real estate advertisements, this refurbishing aspect was particularly present. In 2011, in a short-lived feature, advertisements on the FINN website were represented as random pictures from advertisements offering "inspiration."

Watch inspiring rooms from the dwellings that are sold at FINN real estate right now! Are you dreaming of a new bathroom or kitchen, but not sure where to start? Now you can see thousands of inspiring images and use them as a starting point for your own refurbishing or new furnishing.⁴

The similarities to the rhetoric used in the magazine are obvious. Again, dreams can come true and a change to the better is imminent—through refurbishing.

The core business of the website, however, is selling new homes. As the previous section showed, the advertisements describe rooms as "large"—without regard for the real size of the object the advertisements want to sell. If we again are looking for a gap in Rancière's sense, and given the site's purpose of persuading its users to leave their old home behind, "large" can be translated to "larger than the current home." Here, the politics, in Rancière's term (which may include changes in social identities), residing in the gap between existing home and the one presented in the advertisement is the acquisition of a larger home.

Conclusion: Toward a Research Agenda on Energy Sensibilities

To say that energy is invisible in the material studied here is only meaningful if one adheres to a monologic understanding of energy. In fact, energy consumption is very present, especially in the form of representations of thermal energy. But the results also show that there is not just arbitrary polyphony in this material. Instead, a dominant energy sensibility is present in which energy features as a complementary combination of hot water, large heated spaces, and

⁴ See http://www.finn.no/finn/inspirasjon (author's own translation).

warm ceramic floor tiles. This is no doubt a powerful contender to any alternative sensibility and should be taken seriously as a legitimate way of representing energy.

As a next step, this analysis could be developed further to a proper mapping of energy sensibilities and how they are distributed according to different practices in society. To achieve this objective, variations within the material would have to be studied, for instance whether there are differences according to the size (and, thus, potential buyers) of the objects represented in the real estate advertisements, or between different lifestyle magazines with different target groups. Extending the study even further, a broader range of arenas in which bathroom-energy sensibilities are enacted publicly could be explored (e.g., energy-saving guides or public-policy documents).

Given the specific character of the sources studied here, I have argued that a significant gap exists between the bathrooms depicted in the material and real Norwegian bathrooms, addressed explicitly as a division between the existing and the "bathroom of your dreams." The politics residing within this gap is one of upgrading the existing bathroom to resemble the dominant image described above. Although the average Norwegian household had 2.9 members in 1970 and 2.3 in 2001, in the same period, the average area available to Norwegian households increased from 88 square meters (m^2) (1973) to 115 m^2 (2001) (Bøeng, 2005). At the same time, Norwegians are "the world champions of refurbishment" according to an annual market survey conducted by the marketing research institute Prognosesenteret which estimated that about 50 billion NOK (€6.4 billion or US\$8.6 billion) were spent in 2010 by private Norwegian households to upgrade existing homes.⁵ Additionally, and not surprisingly, given the nature of the material, parallel to the refurbishment theme is one of buying a larger home. These results resonate well with overarching trends toward larger living areas and ever more frequent refurbishments in Norwegian homes.

The study presented here has demonstrated that a research agenda based on a polyphonic approach to energy is not only able to map distributions of energy sensibilities, but also to shed light on secular changes and trends that are important determinants for energy consumption in Norwegian bathrooms (and homes in general).

The objects of the study of sensibilities, such as routines of pleasure (the sensation of an abundant hot water shower in the morning) and habitual dreams of change (reading the lifestyle magazine every month), may sound like a contradiction. But in terms of prac-

Following and complementing Wilk's (2010) invitation to take "folk models" more seriously, the approach introduced here acknowledges that these models contain important knowledge. How people sense and make sense of sustainability related indicators, and how these sensibilities are distributed and redistributed, deserves to be taken seriously within the field of sustainability. Dismissing these sensibilities simply as misconceptions makes for naïve research, policy, and action—to say the least.

References

Bakhtin, M. 1984. Problems of Dostoevsky's Poetics. Minneapolis: University of Minnesota Press.

Barthes, R. 1975. S/Z: An Essay. New York: Hill and Wang.

Berker, T. & Gansmo, H. 2010. Paradoxes of design: energy and water consumption and the aestheticization of Norwegian bathrooms 1990-2008. Sustainable Development 18(3):135-

Bourdieu, P. 1984. Distinction: A Social Critique of the Judgment of Taste. Cambridge, MA: Harvard University Press.

Bøeng, A.-C. 2005. Energibruk i Husholdninger 1930-2004 og Forbruk etter Husholdningstype (Energy use in private households 1930-2004 and consumption according to type of household). Oslo-Kongsvinger: Statistisk Sentralbyrå.

Callon, M., Courtial, J.-P., Turner, W., & Bauin, S. 1983. From translations to problematic networks: an introduction to coword analysis. Social Science Information 22(2):191–235.

Guy, S. & Shove, E. 2000. The Sociology of Energy, Buildings and the Environment: Constructing Knowledge, Designing Practice. New York: Routledge.

Hand, M., Shove, E., & Southerton, D., 2005. Explaining showering: a discussion of the material, conventional, and temporal dimensions of practice. Sociological Research 10(2).

Hand, M. & Shove, E. 2007. Condensing practices: ways of living with a freezer. Journal of Consumer Culture 7(1):79-104.

Holte, E. 2003. Tidsånd på badet (Zeitgeist in the bathroom). Bonytt 10:7.

Kempton, W. & Montgomery, L. 1982. Folk quantification of energy. Energy 7(10):817-828.

Kempton, W. 1986. Two theories of home heat control. Cognitive Science 10(1):75-90.

Kolberg, A. 2005. Vått og flott (Wet and nice). Bonytt 7:7.

Kuijer, L. & de Jong, A. 2011. Exploring Practices of Thermal Comfort for Sustainable Design. Proceedings of the 2011

tice theory they make sense: they represent a subset of practices in which bodily sensations and mental processes (sensing/making sense of) are connected to changes in practices that—in our case—unfortunately point toward less sustainable states. The group of practices that is enacted in consumer sensations and dreams is clearly relevant for the study of energy. For a majority of people, many highly aggregated sustainability indicators will be just as "invisible" as energy. A study of the distribution and redistribution of carbon-dioxide (CO₂) sensibilities, for instance, would look at how different social groups collectively sense and make sense of CO₂ emissions and which politics resides in which gaps between their social position and their sensibilities.

⁵ See http://www.namdalsavisa.no/bolig/article5183380.ece.

- Annual Conference on Human Factors in Computing Systems. May 7–12, Vancouver.
- Lutzenhiser, L. 1988. A Pragmatic Theory of Energy Use and Culture. PhD dissertation. Department of Sociology, University of California at Davis.
- Nye, D. 1999. Consuming Power: A Social History of American Energies. Cambridge, MA: MIT Press.
- Quitzau, M.-B. & Røpke, I. 2008. The construction of normal expectations: consumption drivers for the Danish bathroom boom. *Journal of Industrial Ecology* 12(2):186–206.
- Rancière, J. 2004. The distribution of the sensible. In J. Rancière (Ed.), *The Politics of Aesthetics*. pp. 7–45. New York: Continuum.
- Rancière, J. 2006. Thinking between disciplines: an aesthetics of knowledge. *Parrhesia* 1(1):1–12.
- Reckwitz, A. 2002. Toward a theory of social practices. *European Journal of Social Theory* 5(2):243–263.
- Røpke, I. 2009. Theories of practice: new inspiration for ecological economic studies on consumption. *Ecological Economics* 68(10):2490–2497.

- Shove, E. 1997. Revealing the invisible: sociology, energy and the environment In M. Redclift & G. Woodgate (Eds.), *The International Handbook of Environmental Sociology*. pp. 261–273. Northampton: Edward Elgar.
- Shove, E. 2002. Rushing Around: Coordination, Mobility and Inequality. Draft Paper. Lancaster: Department of Sociology, Lancaster University.
- Shove, E. 2003. Comfort, Cleanliness and Convenience: The Social Organization of Normality. New York: Berg.
- Simon, R. 2008. Demographics, energy and our homes. *Energy Policy* 36(12):4630–4632.
- Wilk, R. & Wilhite, H. 1985. Why don't people weatherize their homes? An ethnographic solution. *Energy* 10(5):621–629.
- Wilk, R. 2010. Consumption embedded in culture and language: implications for finding sustainability. Sustainability: Science, Practice, & Policy 6(2):38–48. http://sspp.proquest.com/archives/vol6iss2/0912-040.wilk.html.