Energy comes home[1]

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Abstract:

The growth in private energy consumption is an increasing problem in the Western countries. From an environmental point of view, this consumption has to be reduced. This article discusses private energy consumption and possibilities for reduction in Norway, with a special focus on the home. It argues against a rational economic view of the consumer and emphasizes the significance of a more subtle understanding of private energy use. The article approaches the challenges of reducing private energy consumption by analysing the domestication of the home and discusses everyday life activities as well as the phenomenon of rebuilding and redecorating. By using the concept of domestication, the article will challenges the linear understanding of technological as well as behavioural change. Private energy consumption is part of a complex network and it is necessary to understand this network in order to achieve a more permanent reduction.

Keywords: Private energy consumption, home construction, domestication, energy saving

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1. Introduction: Costs and consumption

In autumn and winter 2002/2003, Norway experienced a so-called "energy crisis". The expected autumn rain did not come, and because Norway's energy supply mainly comes from hydropower this resulted in severe electricity shortage and excessive prices. The experience revealed some interesting aspects about private energy consumption and the problem of energy saving. Firstly, the energy crisis demonstrated the apparent "momentum" of the technological equipment in Norwegian houses (Hughes 1983). Since electricity has a long history of being the main energy source, electrical panel heaters have been the main or even only heating source in houses. Secondly, and following the first point, the crisis revealed the complicated connection between electricity prices and actual consumption. On the one hand, the consumer response to a doubling of the electricity price was immediate. Some lowered dangerously their indoor temperature and some used only one or a few rooms. On the other hand, people bought wood for their wood burning stoves that was even more expensive than electricity, arguing that at least they knew the costs in advance. There was enormous media attention and the overall impression was that Norwegian consumers saved electricity. However, after some time it was "business as usual". On average, the year 2003 only showed a reduction in electricity consumption of 2.3% with an average price increase of 43% (Bye and Bergh 2003:30).

The deregulated electricity marked is supposed to adjust the balance between production and consumption. Thus, the present energy policy towards households has a twofold focus: energy prices and technology. The logic is well known, rising prices will result in lower demand and relevant technology will have a breakthrough when it

is cheap enough to compete with other technologies. Moreover, information campaigns are used when public authorities need to inform the citizens. However, none of these instruments seems result in a permanent energy reduction.

Why is this so difficult? In this article, I will address the problem through an analysis of Norwegian homes from the perspective of science and technology studies (STS) (Callon 1986, Law 1986, Bijker and Pinch 1987, Latour 1988). From an STS point of view, it is insufficient to understand private consumption as a matter of economical consideration and adequate information only (cf. Bourdieu 1987, During 1993). Thus, the article will pursue social and cultural explanations of private energy consumption (cf. Wilk and Wilhite 1985, Wilhite et al. 1996, Lutzenhiser 1988, Shove 2003). The aim of the article is to provide insights in aspects of everyday life and energy consumption that will broaden the rather static picture of consumers that is reflected in energy policy, as well as question the momentum of the material equipment in Norwegian houses.

Social anthropologist Marianne Gullestad (1989) has studied the cultural aspects of everyday life in Norway and she found a particular interest for rebuilding, redecoration and home design. One of her explanations is that these types of activities fit perfectly with the more moral aspects of everyday life. As she puts it:

> Investing in the home is, moreover, in harmony with the Norwegian ideals of diligence, simplicity and sobriety. Norwegian culture emphasizes practicality and usefulness above aesthetics and creativity (…) As the creative part in this matter also include a practical element these attitudes are not challenged. In other words: The nice thing about rebuilding and redecorating the home is that this work gives Norwegian women and men the ability to engage in creative play camouflaged as serious, useful activity that "has to be done"(Gullestad 1989:5. My translation).

The rebuilding and redecorating processes provide a material component in constructing a home, which is interesting in a discussion of implementation of more energy efficient equipment. However, making a home also involves non-material aspects such as cooperation and negotiations concerning work, economy and norms and values (Levold and Aune 2003). It is also important to know more about these processes in order to understand the dynamics of everyday life and energy consumption.

The empirical material comes from two studies of Norwegian households (Aune 1998, 2002). The energy crisis, with all the reactions it brought about, provides an opportunity to reanalyse this material from a new perspective. The first study, "Spending or Saving" is an analysis of everyday life and energy consumption in Norwegian households. The data consists of in-depth interviews (34) and existing survey data (1022) (Ljones and Doorman 1992). The qualitative interviews were conducted in the period 1995-97. Each interview lasted for 1-2 hours. The households represented variations concerning age, income, education and type of dwelling. The home was one of the subjects discussed in these interviews. Based on these data various lifestyle groups (energy cultures) were identified. The study showed that Norwegian everyday life is performed without much reflection around energy consumption as such. Furthermore, it showed that income did not explain variation in energy consumption. This present analysis of Norwegian homes draws to some a large degree on findings from this analysis. In addition, I use material from a second study dealing with the introduction and use of an energy-controlling technology, called Ebox. Seventeen selected households were interviewed for 1-1 ½ hours. The members of the

households varied in age, income and education and they all lived in the same type of house (Aune 2002). The Ebox project illustrated an implementation process and showed how users can be part of the innovation process.

I have analysed the practical construction as well as the symbolic meaning of the home through exploring how the informants from these two studies talk about everyday life activities and rebuilding and redecorating activities, the appropriation and use of technologies, and reflections about a home as such. Details related to energy consumption were also registered. The interviews were conducted at the informants' own homes, which gave me the opportunity to do some observation of the actual home. The process of analysing data is inspired by grounded theory using different coding procedures and case descriptions (Strauss 1987, Strauss and Corbin 1990). Through coding, I have constructed categories of homes, which I will discuss and develop in dialogue with theoretical concepts.

2. Energy, consumption and technology

The oil crises in 1973 resulted in an increase in studies of energy consumption within many different disciplines. Dominant fields in the seventies and early eighties were technological, economic and psychological studies (cf. Lutzenhiser 1992, Aune 1998, Engan 2001). However, these approaches tended to reduce energy consumption to economically rational activities enabled or constrained by technological solutions. To grasp the more complex relations that did not "fit into" these models, Loren Lutzenhiser (1992) therefore developed an alternative "cultural model" of household energy consumption with contributions from sociology and anthropology. During the

1990s and up until today, the amount of research with a cultural and socio-technical perspective has increased (Wilhite et al. 1996, Aune 1998, Wilhite and Lutzenhiser 1999, Rohracher 2002, Shove 2003, Ornetzeder and Rohracher 2006). However, studies with a cultural perspective have still had limited relevance in designing energy policy compared to technological and economical approaches.

Homes have been studied from many different angles and disciplines (Oakly 1976, Cowan 1983, Lie and Sørensen 1996, Berg 1996, Hochschild 1997). Wilk and Wilhite (1985) and Wilhite et al. (1996) focused on energy consumption and the meaning of the home. They claim that we cannot explain private energy use without understanding the diverse meaning of homes. Technology and economy are significant, but not the only or even the most important driving forces. They found aesthetical aspects and the meaning of cosiness to be more influential. A comparative study of heating and lighting in Japan and Norway illustrates how different the inhabitants express and experience cosiness and comfort and the energy implications of habits and technological preferences (Wilhite et al. 1996).

Elisabeth Shove (2003) analyses specific everyday life routines and the technologies involved. She provides us with an understanding of a more general pattern of increasing energy consumption in private homes and in Western societies. Shove stresses the importance of questioning the development and growth in consumption that is taken for granted. When these aspects are illuminated, we can also discuss possibilities for change. Still, according to Stove, changes may be limited due to the persistence of the built environment:

> The buildings we inhabit today consequently contain within them important scripts for the future for they are, like it or not, helping to build what will become the traditions and conventions of tomorrow (Shove 2003: 76).

Like Shove, I will argue that we need to analyse the different aspects of everyday life together in order to understand the dynamics of private energy use. I will however, focus especially on the possibilities for change. How can technological changes be encouraged? What can motivate behavioural changes?

Psychological research in the 1980s studied the relationship between attitude and behaviour. The idea was that one could influence energy consumption by developing good methods to change people's attitude towards energy (Fishbein and Ajzen 1975). However, the direct link from attitudes to behaviour proved to be problematic. A positive attitude towards saving does not necessarily correspond with economizing (Ritchie et al. 1981, Curtis et al. 1984, Holden 2005). The same lack of linearity was also found in studies of the effects of technology or material frames on energy consumption. Studies showed that effects of for instance better insulation or efficient household technologies were highly dependent on the users and their life within these material frames (Gaunt 1985, Ljones et al. 1992).

With an STS perspective, we can however avoid linear explanations and determinism. Through an analysis of how homes are constructed and what they symbolize it is possible to gain knowledge about the *parallel* processes of behavoiral and material change. Research involving appropriation of technologies and construction of everyday life has in this tradition is often described as domestication processes (Silverstone et al. 1991, Silverstone et al. 1992, Lie and Sørensen 1996). Silverstone et al. introduced the

concept in an analysis of how media technology was integrated into the "moral economy" of a household. They argue that this integration process can be viewed along different dimensions, practical as well as symbolic: appropriation, objectification, integration and conversion. The concept of domestication captures, however, more than the practical actions and symbolic meanings that surrounds a technology. By studying both participants and processes, it is possible to achieve insight into the possible changes that take place in relation to the technology. According to Sørensen:

> What is constructed through domestication may be understood as micro-networks of humans, artefacts, knowledge and institutions (Sørensen et al. 2000:241).

By using the concept of domestication, I will challenge the linear understanding of technological as well as behavioural change. By focussing on material change through rebuilding and redecorating, I will also question the technological momentum of the "electricity society". Private energy consumption is part of a complex network and we must understand this network in order to achieve energy efficiency or reduction.

3. Constructing homes

3.1. Rebuilding and redecorating

In 2003, the 2 million Norwegian households spent EUR 4 billion on rebuilding, maintenance work and redecoration of their houses (Prognosesenteret 2003 [The Norwegian Forecasting Centre])[2]. The rationale behind this activity is diverse. There are certain structural and economic conditions that explain the work. The amount of ownership is probably important. In Norway, almost 80 per cent of the households own

their own houses. Investing in property is viewed as a secure investment and the past 10 to 12 years money spent on house improvements has paid off indeed. Furthermore, old houses need maintenance. Therefore, it can be stated that investing time and money in your own house is a rational activity. However, the amount of money spent on "aesthetic" rebuilding like changing the style of the kitchen or bathroom is considerable. This makes the phenomenon interesting to look into as a cultural, rather than a pure practical, activity (cf. Gullestad 1989). Energy saving does not in any case seem to be an important motive. Nevertheless, we know from aggregated data that this trend involves quite a lot of important rehabilitation work, which results in more solid and more energy efficient houses (Statistics Norway 1988). Thus, energy saving can be an interesting result.

Rebuilding and redecoration involve and illustrate both material and symbolic sides of consumption. Creating a home that can fulfil your needs and present yourself to others is an important dimension of everyday life. Wilhite et al. (1996) uses the term "nest-building" to illustrate these processes and argues that the motives for such changes are increased comfort and more cosy and presentable homes, not energy saving. The motives behind this work do not make any difference to the possible energy saving results of the activity. On the other hand, knowledge about peoples motives are important when communicating the message of energy saving. Information as well as technological solutions has to be tailored in order to meet people's needs and taste as well as meet the household as a moral unit. Market-based energy policy instruments focus on costs and competition as a solution for market breaks, but this is a limited

view of technological appropriation. We know that the symbolic value of artefacts and technologies can be very important. Thus, it is important to find different ways to approach the consumer. To give a broader picture of the consumer, the household and the "socio-technical" processes of energy consumption, I will present variations of the domestication of homes.

3.2. What is a home?

Through analysis of interviews and observations I have developed three different categories of homes: *The home as haven; The home as project and The home as arena for activities.* The three categories of homes are not mutually exclusive. Many informants described the home as a feeling as well as a concrete place. The home provided or should provide a feeling of privacy and identity, of comfort and company. This seemed to be closely connected to an actual place, building or apartment and actual activities performed within these four walls. Some aspects of constructing a home were shared amongst most of my informants, which I present within the category, "the home as haven". This category has a very strong symbolic meaning and refers back to the feeling of what the home provides or should provide. The other two categories illustrate two different groups of informants and represent an active and concrete approach towards developing a home. These two groups also inform more concrete actions for change.

3.2.1. "The home as haven" - a goal, a value and a process

The home shall be peaceful and cosy, warm and comfortable (woman 25).

There are many studies of the home and women's position in the home (e.g. Oakley 1976, Hayden 1986). The reality is that to very many people the home is not a haven, but a workplace. Cowan (1983) shows how the privatisation of housework has consequences for women in general. Hayden claims that the image of the home as a private and relaxing arena is not a general image. For women the home has always been a workplace:

> Society defines the ideal home as a warm and supporting place for men and children, but for homemakers it has always been a workplace, where "a woman's work is never done" (Hayden 1986:66).

"The home as haven" in my material however, communicates primarily privacy and tradition. Like one of the informants said:

> It is important for kids growing up to experience their house as a home - because they need a "core" place in our turbulent times (woman 65).

"The home as haven" is a symbolic more than a concrete realisation of the home. It is, however, often necessary to materialise this feeling by constructing the environment and by performing certain activities. The network of action and artefacts corresponding with this vision of the home are interesting both in general terms, and specifically from an energy point of view. Domesticating heat and light seem very important. An open or viewable fireplace can provide both:

> We had a fireplace with glass. We used to sit and just watch the fire (woman 35).

"The home as haven" can be an illustration of the importance of cosiness emphasized by Wilhite et al. (1996). Cosiness here means the right lightning, a comfortable indoor temperature, an open fireplace and also the use of hot water. Taking a bath after a long

day is a way to realise this feeling of the home. A hot bath is an arena for privacy, rest and meditation, a haven within the haven. This type of bathing has nothing to do with the new standardisation of "cleanliness" as also Shove states when discussing bathing routines (Shove 2003). The motive behind this habit is irrelevant for energy consumption. However, the ways one has to approach these different activities in order to change them should obviously be different.

"The home as haven" is a network of images, actions and artefacts. The empty house is never a home. "The home as haven" represents a strong symbolic image, and is more personal and private than the two other categories. The moral dimensions relate to privacy, cosiness, stability and unity. It is important to communicate with that image when trying to change people's energy consumption. High energy costs, new energy efficient technologies, information champagnes and other instruments that is implemented to reduce private energy consumption should probably not challenge "the home as haven".

3.2.2. "The home as project" - continuously designing and building

> I am more interested in having a nice home than spending money in restaurants and things like that. I like restaurants, but I would rather buy something for my home (woman 60).

This is a home in the making. When the house is domesticated once, you start over again. New things are appropriated and placed, furniture replaced or rearranged, curtains exchanged and walls repainted. It is not necessarily big changes like a new kitchen or bathroom, but that may also be the case. For some this is a life long project. There are always new requirements, your taste changes, new products become available, your economy improves and/or the social aspects of retrofitting are

"necessary". The home as a project is also communicating to the surrounding world. It is a material and symbolic expression of the inhabitants, of their taste, priorities, relationships and qualifications.

The home as project illustrates the interest in spending time and money on reshaping the indoor environment. Domesticating the house means constructing a physical place where you feel comfortable at the same time as it is shaped to provide a space for activities as well as leisure time. The process and the result communicate individual identity as well as the common identity of the family. Moreover, domesticating the house means working together and building or rebuilding companionship (Gullestad 1989). It is important, however, to balance the understanding of the practical and the symbolic, and the effects of the behavioural and the technological. The domestication perspective stresses the non-linearity of these processes. You can have a practical motive behind the appropriation of a technology, but through a process of integration, your attitudes change and the symbolic meaning will become more important. On the other hand, you may discover that something bought purely out of aesthetical interest changes through use to be a very practical and necessary tool. Technology and everyday life activities as well as attitudes mutually shape each other.

Saving energy was not a motive for retrofitting and designing the home in this group. Improving comfort seemed more important. This implied that a lot of the rebuilding activity had the opposite effect of energy saving. Bathrooms with for instance a bubble bath, are very energy demanding. The interior trend with open spaces, few but large rooms, and high ceilings are also energy demanding. This is not a result of a lack of information. Like one of the informants said:

We are taking down all the walls inside to have more light, view and feeling of space. This is not very smart from an energy perspective (man 50).

There are many different motives behind the "home as project": Increased comfort, creating a more modern home, more light and space and of course practical reasons. The financial discussions in the domestication process were related to the price of different materials and technical solutions, but design and functionality was considered more important. Moreover, the financial consequences of the process such as higher electricity bills did not seem to be of much concern. This has perhaps changed. If the electricity prices continue to be high, one could argue that a more energy-aware retrofitting will take place. However, it is unlikely that this will become the main motive for home improvements and redecoration. Wilk and Wilhite questioned in a study the low interest for weather-stripping (applying insulating tape in window and doorframes) since this was a low-cost but very effective effort (Wilk and Wilhite 1985). Their answer was that this activity did not have any symbolic value. It did not make any difference to the home as an expression of one self or the family.

"The home as project" illustrates different ways of domestication, different interests and different motivation. What unites is the continuous shaping and reshaping of a house. The companionship that this activity can create - rebuilding families and relationships - the creative aspect and the symbolic value of having a nice and modern home are dimensions present in the material. "The home as project" is the most typical manifestation of "modern" consumption patterns. Still, this home can be the most effective one to intervene. Thus, from an energy point of view, understanding the domestication processes can provide us with new ideas of how technologies can be

designed with a script that matches the style and practice of homing. Moreover, we can develop varied ways of communicating energy saving towards a group that values comfort highly, but is also very interested in reshaping their (houses and) homes in a creative as well as practical way.

The next category represents a very different way of domesticating the house and creating a home. "The home as arena for activities" is created on the basis of statements and corresponding behaviour, and gives a picture of a home where the main thing is that people spend time together and work together.

3.2.3. "The home as arena for activities"- working together

A home is a place where everyday life activities are performed. Washing, cooking and things like that (…). A place with people, not an empty house (woman 40).

In this group, style and material goods are not reckoned as important in order to create a home. The feeling of home lies in the unity of people and activities. The environment has to be practical and not something you want to show off with. This home is constructed through work, cleaning, cooking, baking, maintenance work, and social activities:

I do not want a dishwasher. It is not a big deal to wash a few cups. In fact, it is OK to just stand there and think about things (woman 40).

Norms and values are communicated through activities and behaviour such as showing the children that you have to clean up after yourself, not leaving it to a machine. Technology is avoided if possible and practical. No one washes clothes by hand, but as one interviewee said when we discussed cooking:

> We have learnt by experience that food gets better when you make it yourself. When we make fish cakes, we chop the fish instead of using a food processor (man 45).

"The home as arena for activities" reflects different lifestyles from a more intentional "alternative and green" lifestyle to a traditional way of life. In both cases, a non-spending, non-wasting, environmental-friendly image is communicated. A non-consuming lifestyle reflected through this home is in some ways a more normative position than one indicated through "the home as project". Still, many argue that they really do not care. The reason why they chose this lifestyle was that they had been brought up this way and that there was no reason to live differently.

> I think it has to do with quite a strict upbringing. We were taught, at least that is what I remember (…), not to drop rubbish in the environment, to turn off the lights when leaving for instance the bathroom (….) little to do with environmental consciousness, really, more a kind of tidiness (woman 30).

"The home as arena for activities" is characterised by a modest energy use concerning material factors as well as everyday life routines. It is, however, not that straightforward. If the only measure was life-cycle cost, this would be a very low-consuming home. These homes are not rebuilt and redecorated in the same way as "the home as project"; they are maintained and repaired. The main point is that the house functions and that windows and walls are impervious. No big rebuilding activities are performed unless they are necessary. The artefacts in these homes, whether it is a couch, a television or refrigerator, are worn out before they are replaced. There is no attempt or wish to follow the new trends. "Unnecessary" technologies are never appropriated which is not, however, just a practical matter:

I find it rather unattractive with all these machines lined up, which are used only once a month (man 45).

All these choices contribute to a lower energy consumption concerning the production side and thus life-cycle costs. However, when it comes to use, the opposite may be the case. Old technologies are more energy demanding and old houses often require more energy for heating. Looking at behaviour, the same paradoxes occur. Doing the dishes manually in hot water may be more energy consuming than using a dishwasher. The process of making all the food at home - "I often bake bread or muffins every day. Sometimes even twice a day" - are more energy demanding for each household than buying factory-made food. On the other hand, a high level of activity reduces the need for a high indoor temperature. In addition, this group preserves rather than rebuilds their houses. This implies that the rooms have doors to close, there are no open space solutions which have been very popular during the past years. These material facts support the habit of not using and thus not heating rooms in cold periods.

Cowan's book (1983), provides some insights into the historical development of the home and the privatisation of housework. This is interesting in an energy perspective, because it reveals the energy consequences of the different ways we choose to organise public versus private activities. Through privatisation of washing, cooking and transport, a trajectory was chosen, which probably was and is an energy-intensive solution. Cowan claims that the traditional home and thus, gender structures, would have been weakened if the traditional housework had become "public". The development of household technology was a part of a general social, cultural and political development (Cowan 1983). If work and social relationships through work are

important in constructing "the home as arena for activities", it can explain the stability of these habits. Not surprisingly, this turns out to be a more gendered home than "the home as project". While rebuilding and redecorating is varied work, involving the men in the household, housework is still to a large extent women's work.

"The home as arena for activities" illustrates a different way of domestication than "the home as project". In one way this is a more sustainable home with much lower consumption of goods and some everyday life habits that are energy saving. At the same time, the old machines and the interest in preservation rather that retrofitting point in the opposite direction.

When trying to approach this group one faces several challenges. This is a varied group when it comes to motivation. A "green message" will only fit some. A message of responsibility and common interest will fit others. Economy is more important in this group than in the previous, and when promoting new technology one has to point to practical and financial factors. Saving energy has a moral as well as an economical basis. Paradoxically, these consumers, who already try to save, are likely to respond the most to increasing prices and information (Aune 1998).

Summing up, the three different categories of homes presented here have illustrated various ways of domesticating a house and turning it into a home, constructing and negotiating a network of occupants, activities, technologies and values. Some work towards a concrete result, for others the process itself seems to be the important aspect. "The home as haven" is rather a result than a process. "The home as project" and "The home as arena for activities" are ways of reaching this result as well as accomplishing other aspects of the home. In "the home as project", economy plays a rather marginal

role, whilst financial consideration is present within "the home as arena for activities". For both groups other aspects are more influential like the symbolic value of things, comfort requirements and practical considerations. New technologies entering the homes are often part of the home construction. Technologies are appropriated for various reasons and have symbolic as well as practical value. They may be seen as serving a concrete purpose, or they may appeal to a special technical or aesthetical interest.

Domestication strategies influence the way the house is shaped as a material frame and as a symbolic image, but these strategies are regulated by the norms and values within the household. At the same time, the norms, values and material frames seem to contribute to various everyday life routines and changes in these routines. None of these categories of homes can be identified as sustainable without going into a more detailed discussion of routines, material standards, technologies and technology use. The resulting energy consumption depends on the various combinations of these factors.

4. Concluding remarks

The growth in private energy consumption is an increasing problem in Western countries. From an environmental point of view, this consumption has to be reduced. Cultural analyses of energy consumption show that there are many factors shaping the consumption pattern and that the image of a rational consumer is wrong. Still, this research has not influenced energy policy to any significant degree. The present energy policy still relies highly on energy prices and information, and conveys a linear

understanding of implementation of technology. According to social and cultural approaches, private energy consumption is a result of a combination of activities, preferences, values, technologies, and material structures. In order to investigate some of these aspects together, I chose to use the home as an entry point into this network. By focusing on the construction processes as domestication my aim was to grasp the mutual shaping of the material and non-material aspects of this practice as well as challenge the momentum of the material frames in Norwegian homes. "The home as haven" was a shown, an image of a home shared by very many of my informants in both of the two other groups. This category is constructed to illustrate the importance of communicating with the picture of cosiness and privacy that is so dominating in the domestication of Norwegian homes. The two other categories offer more knowledge and thus more varied possibilities of change. "The home as project" is an illustration of domestication where rebuilding, redecorating, appropriation of artefacts and high comfort are important. Energy aspects or environmental concern, are not important motives behind the activities. However, this does not necessarily result in increased energy consumption. The opposite may also be the result. I made a point though of influencing the domestication of this home in a more sustainable direction by specifically developing and marketing energy-saving technologies towards this group. Design, functionality, availability, and usability are factors that are important in this respect. The amount of money spent on rebuilding and redecorating activities indicates that it would be wise to approach this trend more actively by both increasing the knowledge and supplying sufficient artefacts.

However, rebuilding and redecoration are not always viewed as important in the construction of a home, and not everyone is interested in new technology. As the category "the home as arena for activity" illustrated, there are ways of domesticating a house that does not involve the same amount of consumption of goods. Within this category, which paradoxically already represents a simple lifestyle, the response to rising prices and information is likely to be the strongest one. This is a category with a conscious and informed approach to energy consumption and consumption in general. Thus, they will demand correct information and question the instruments used by the authorities as well as the result of market mechanism.

Simplified categories are of course constructions and do not provide us with the complete picture of variation. However, they convey an understanding of a complexity that is far from the "rational consumer". The energy shortage period, 2002/2003, was a huge social experiment (involuntarily) and this experiment revealed other reactions than was previously observed in Norway. The sudden price increase proved that the consumers did care about price. However, the experiences of energy saving showed that there was no direct link from concerns to measurable results. This paradox can be understood by integrating economy into an everyday life setting.

The practical/political consequence of this knowledge is, to put it simply, that advice of behavioural change and technologies directed towards "home market" have to meet the requirements of different images and practical constructions of the home and not expect a simple diffusion process of either information or energy efficient technologies. Moreover, this analysis indicates that it is important to integrate economic instruments with other and more long-term initiatives.

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