

# Heating Swedish houses: A discussion about decisions, change and stability

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## **ABSTRACT**

This paper discusses the nature of household decision-making as well as the connections between decisions, change and stability. It is based on field research among Swedish householders who have recently replaced old heating systems in their single-family houses. Ongoing fieldwork is also carried out in companies that sell pre-fabricated houses, as well as among the men and women who are buying such houses and are in the process of creating the home of their dreams. The discussion is carried out bearing in mind global warming and a Swedish national energy target. It is widely assumed that one important way of reaching this target is by using subsidies and information to persuade households to make wiser decisions on consumption. The research results show a more complex picture of decision-making involving gendered decisions, social decisions, limited options, emotions, and decisions made by others or, seemingly, by no one. Furthermore, this paper discusses how slow-to-change cultural structures are able to restrict or influence individual decisions and actions, but also to be modified by them.

**KEYWORDS:** decision-making, change, structure, household, energy

## **Introduction**

In a time of global warming, of decreasing natural resources and of nuclear waste accumulating, the amount of energy used for the heating and cooling of houses is steadily increasing. This paper discusses the nature of some of the decisions and circumstances that allow such an unfortunate development. The focus is on the choice of heating systems for Swedish single-family houses.

## **The Swedish national energy target**

The Swedish Government has established a target to reduce the amount of energy used for the heating of buildings by 20 percent by 2020, and by 50 percent by the year 2050. Fossil fuels should be completely abandoned by 2020, and renewable energy should increase continuously. An evaluation made by the National Board of Housing, Building and Planning in 2007 (2007: 37–38) is positive with regards to the speed by which fossil

fuels have been abandoned in Sweden since 1995, as well as to the increasing use of renewable energies. However, the report also seriously doubts that the scale on which energy efficiency is being applied to house heating will be sufficient to reach the targets in time.

## **The research project**

This paper was written half-way through anthropological fieldwork among Swedish households and housing companies. The research is financed by the Swedish National Energy Administration with the aim of investigating cultural structures and processes that tend to limit the opportunities for Swedish households to reduce their use of energy for heating purposes.

Two kinds of situations in the lives of households are addressed in particular. One is the situation in which people in single-family houses decide to replace their old heating systems with new ones. This part of the project, which is now concluded (Henning 2007), involved repeated interviews with thirty-two men and women in twenty-two households. The households were in two Swedish regions: one in a bigger city, the other more rural. All households had recently replaced their old heating systems. Each new system had a hot water store as its core and used solar heating to reduce fuel consumption. The solar heating was complemented, either with electricity and a heat pump, or with firewood or bio-pellet for a boiler or stove.

The other kind of situation involves couples who buy new houses from firms manufacturing prefabricated houses and who make their numerous decisions and plans for their respective future homes. The methodological approach in this part of the project is a more traditional anthropological field study with a broader perspective on various social actors and methods, which include participant observation, small-talk, interviews and the study of magazines, advertisements etc. About ten households (the exact number uncertain at the time of writing) are being followed through the process of house-buying, and two housing firms in particular are being studied more closely.

The anthropological research is also supplemented by a study of a political scientist on the effects of national housing regulations, and by an implementation-oriented collaboration between the two housing firms and two technical researchers. The title of this multi-disciplinary project with an anthropological base is *Two steps forward, one step back. Structural impediments for households to reduce carbon dioxide emissions and energy use for heating*.

## **Historical background**

During the last century, the heating of buildings in Sweden went through major changes. On each of these occasions for change, there was a strong focus on one single source of energy, and a seeming conviction that the current solution is the final and most correct one. In the 1950s and 1960s, firewood was replaced by oil. A large number of energy-efficient tiled stoves were perceived to be old-fashioned and replaced by boilers or district heating, both at the time using oil. District heating has now mainly switched to bio-fuel,

and many oil-boilers are at present being replaced after more than forty years of use (thus making a serious contribution to the positive fossil fuel reduction figures).

Another example is provided by the mid 1970s and early 1980s. This was a period when both the construction of nuclear power and a conversion to electric heating were accelerated. Many single-family houses were built with without boilers, chimneys or basements and were equipped with electric resistance heaters. Today, these houses are extremely difficult to convert to waterborne and energy-efficient heating systems for renewable sources of energy.

At present, despite the fact that it takes a lot more energy to heat a house through electricity than directly by heat, common trends are for Swedish house-owners to replace their old oil-boilers with electricity and electrically driven heat pumps. Furthermore, a large number of newly-built houses are prepared for water-borne electricity with heat pumps. Generally, these houses also lack suitable space for hot water stores for solar- and bio-heating. It is an official aim of the government to phase out both fossil fuels and nuclear power (electricity). On the other hand, the government subsidises heat pumps, thereby accelerating the pace by which the on-going conversions from oil to electricity occur.

Consequently, a large number of new heating systems installed today provide very small opportunities for their owners to modify them with other sources of energy later on. The option of replacing parts of the electricity or bio-fuel with solar heating is not being retained. This means that valuable bio-fuel resources and electricity from water-power are wasted during the life-time of these heating systems and, most probably, during the life-time of the newly built single-family houses.

It is with global warming and this background in mind that the paper discusses the nature of decisions, in what context these are situated, and what the decisions and 'non-decisions' can do.

## **The house as limitation**

For the men and women who had replaced their old heating systems, their home was the natural point of departure when choosing among new heating alternatives. The house was also the departure point when deciding where each heating component should be situated and, before the installation could be made, in which order various tasks should be performed. Thus, the size, shape and spaces of the house were material aspects that householders always had to relate to since these limited their options.

Among the households we visited, it was quite common to have made larger or smaller alterations to the house before installing the new heating system. For example, someone took down a wall between the kitchen and the living-room to create a larger room for the new stove. One family moved a door and a wall to create a good site for a bio-pellet stove in the kitchen and a suitable corner in the living-room for the hot water store. Another reconstructed and added to the old pantry, thereby creating a modern boiler-room with bio-pellet storage, pellet-burner and hot water store inside and solar collectors on the roof. Someone else decided to move the boiler-room down to the garage on the ground floor so that they could enlarge the kitchen by incorporating the old boiler-room into it.

We asked one woman to explain what she meant when she said that there were so many decisions and so much anxiety before she made up her mind. She and her family lived in an older house in the countryside, and had recently replaced their oil boiler and old wood-burning kitchen stove. The new heating system consisted of solar collectors on the roof, a firewood kitchen boiler, and bio-pellet boiler and hot water stores in the basement.

First of all, you need to check out where these fireplaces could be situated and which flues they could be connected to. At first, we were very sure that the wood boiler should stand here (closer to the door). We thought that would be smart, considering the handling of the firewood. Then, you need to get the opinion of the chimney-sweep, and you have to do some more thinking yourself. Finally, we realized that the boiler would have to be placed in the corner where the original fireplace was, as there is a really good damper and hood over that place. Then the chimney-sweep told us that in that case we would need a total renovation of the chimney. When the old pipes from the oil-burning times were torn out the entire house creaked. But if we wanted to use firewood, then the chimney just had to be renovated!

And then we had to decide how many solar collectors we should have, what kind of hot water stores were suitable, and would they fit into the small boiler room in the basement? Whoops! Then we would have to renovate the boiler room first! And if we wanted to get a kitchen boiler in here, than we would have to renovate the kitchen ... do you see?

Oh, yes..., so it was so much. One part of it all was these technical matters. What kind of stuff we would choose. Just to investigate ... took a lot of time. Which make of kitchen boiler did we believe was best? It takes a lot of commitment just to keep on reading about these things. And then you need to call these different manufacturers to get information...

And we sort of did not get it ... We received some estimates before Christmas. But it took us a really long time, and it was not until we had finally decided on a particular offer that we started to think: What will this decision entail? That Christmas, we had had nothing special to do, so we had already began to renovate upstairs. It was a total mess there when a light was dawned on us ....oh, my God! When the new kitchen boiler is in place, it can never be moved! I realized that I would have to replace the old tiles ... in that corner ... before the boiler was installed. And then the pellet boiler ... in the basement ... would have to stand on something, so I had to cast new concrete down there so that the boiler would stand straight. I had no idea that it would take all this time and so much work!

A few households had decided to make even more thorough alterations to their houses. Two households had had an extra floor added to their respective houses just to get suitable roofs for the new solar collectors. Both households saw the improvement in the appearance of the house as an extra bonus. The shape of the house was nicer now,

they said, and despite the fact that they did not really need the new extra room (their children had grown up and moved out), they were still happy about it.

The interviewees themselves did not always experience the house as limiting, however. More often, they merely saw themselves as adjusting to the form, size and location of the various spaces of the house. Some of them accepted what was already given without even giving it much thought. They would, for instance, immediately drop the idea of bio-pellet or firewood when they could not think of anywhere to store these. Or they would let the existing boiler room determine the size of the hot water store, etc. However, there were others who did not alter their house, but who still did not give up so easily for lack of suitable space. Instead, they simply decided to start at one end and solve one thing at a time. One example of this attitude concerned the hot water store that was installed in a tiny four m<sup>2</sup> laundry room:

The only problem was that we could not fit the tumble-drier in again [said the woman]. I guess we will have to put it someplace else. Maybe we can have it in the entrance hall; we could build a cupboard around it perhaps. Besides, we are not that much at home right now anyway, so we will not need it that much.

## **Slow-to-change structures**

The physical structure of the house and the way people are either inhibited by it or change it illustrate the link between decisions, change and continuity. In order to understand change, it is not enough to understand decisions, activities and courses of events that can have a stabilising or changing effect on the existing social order (Moore 1975; Henning 2000). We also have to understand that very order, the structure which is both the condition for a modification and the continuity that is being modified. What is transient and what is slow to change must be looked upon as something relative, however. There is no absolute dichotomy between them. The world is not divided into passing thoughts, decisions and actions, on one hand, and stable structures, on the other; these are only stable or quick-to-change in relation to one another.

Houses are formed from culture-specific ideas that seem relevant to their designers at the time of their construction. However, a house may stand for a hundred years or more. During all these years, the form of the building, the size and location of the various rooms, the existence of a basement etc., continue to influence a large number of households throughout various stages of their life cycles. When other conditions and circumstances change, including the size of households and wishes of household members, the material structure of a house sets up limitations as to what may be done in it. We could see how many of the householders in our study had fully conformed to the limitations of their house (the way they perceived them). Still, others responded differently to the same kind of limitations and chose to modify them.

In classic anthropological theory, structure and process were recurrently presented as a dichotomy, as a theoretical difference between abstract models of stable regularity in society and individuals' actual actions. Sometimes other words have been used. Firth differentiated, for example, between social structure and social organisation (Firth 1961; Moore 1975; Van Velsen 1967). Turner (1969) made a distinction between structure and

communitas and Nadel between the forms of relationships and their content (Nadel 1957; Scott 1991). Barth wrote about the differences between social form and process (Barth 1978; Moore 1975), and Giddens (1993) about structural qualities and subject. The significance of the words has certainly varied somewhat, but common to these authors seems to be an observation that people's lives together are characterised both by casual incidents and more regular courses of events.

One way to close, or at least narrow, this theoretical gap between stability and change, is to treat the idea of 'structure' as something that is nearer people's lives than the abstract generalising models of society for which the structure concept has often been used (Henning 2000). If the intention is not merely to use the concept to describe the regularities and cultural patterns in a certain society, but to do so for the particular purpose of describing processes of reproduction, modification or change, it has to be brought close to the material we study. We could look upon structure as stabilised cultural externalizations, but also as a comprehensive term for material, social, and conceptual phenomena that actually have a part in the lives of the people we study. Structures like houses, for instance, are then seen as cultural expressions that have stabilised in the material form of a house and thus become slow or difficult to change. In this version of the concept, there is an in-built inertia in social, material, and conceptual structures, but they are not thereby static.

## **Gendered decisions**

Hitherto, the single-family houses have illustrated how householders interact with material structures in their decisions to replace heating systems. A look at how culture-specific gender patterns influence this kind of decision-making will give us yet another perspective on the link between decisions and structure. This time, the structure is social in kind.

In the interviews, it was sometimes possible to discern differences in men's and women's motives for preferring one heating system before another. Still, only in a few cases was there a genuine collaboration between husband and wife throughout the process leading up to a decision. Normally, the man came to a decision after having informed his wife and, to a larger or smaller degree, having sought her opinion. He tended to have a 'right of veto', while she tended to play down her wishes and interests: 'She was not into these technical things, so I guess one might say I was the one who took the decision. But we agreed that something should be done about it'.

The interview material confirms the fact that technical-practical tasks tend to be seen as predominantly male areas of interest and responsibility in this culture area. Thus, in many households, decisions that concerned the heating of the house were made by the man alone. There was also a tendency amongst these men of finding ways to have things their own way, either in a more straight forward manner or in more subtle ways. In one household, for instance, the handling of the new heating system was given priority to the handling of the laundry, a task which, in this culture area, is, in practice, a predominantly female responsibility. This man had taken a part of the laundry room and made it into storage for firewood. He was asked whether his wife had any opinion on this:

Yes, of course. There was some resistance. I had to coax her into it. You need to give it some time, that's all. Then it will solve itself. It all became so much easier to handle the firewood, that's for sure!

We did have a few households in the study where a woman had made all, or the major part, of the decisions herself. This situation was only found in households where no man was able to compete about the right to decide, however. Two of these women lived by themselves, one of them in periods with one or two of her grown children. One woman lived with a man who was too old and sick to be able to participate in decisions. The fourth woman lived alone with a small son, but had a relationship with a man. She discussed the issue with him, but had kept the right to decide about matters that concerned her house.

## **Social decisions**

The process which precedes a change of heating system could best be described as a long sequence of thoughts and events. This means that most people keep thinking about replacing their heating system, searching for information, and discussing the matter with others, during a long period of time before something happens that triggers them to actually do it. In some households, it seemed natural to do something about the heating when the house was renovated, or when the summer cottage was altered to a year-round home. However, the main determining factor among nearly all the interviewees was personal meetings and discussions with neighbours, relatives, colleagues, and friends.

For instance, one woman described how, for ten years or more, she had been afraid that the oil boiler would break down, but was inspired to do something about it when her neighbours installed a pellet burner and had a storeroom built in the basement. Several households had in similar ways, after years of thinking, been influenced by neighbours or friends to carry out the conversion. One married couple told us how they both had thought about it, and discussed it with one another for several years, but it was not until similar boilers along their street started to break down, one after another, that they felt obliged to take it seriously. One man said that he had been thinking about solar heating for many years, but not until he met a friend who took him to a solar course did he see to it that the installation was done. In yet another household, the household members had been tired of using firewood for a long time, but only decided to install electricity with heat pump when their neighbours did so.

Such examples indicate something which is quite far from a simplified idea of the nature of demand. What we find here is one of the social, and thereby cultural, aspects that is overlooked in assumptions about demand as merely an infinite and transcultural desire (Appadurai 1990; Wilhite 2005).

Moreover, the fact that friends and neighbours have a profound impact on decisions to install a certain kind of heating system and the moment when this will be done does not mean that consumption and diffusion processes can simply be studied with a mapping of social relations. In real life, artefacts do not spread like an infection from one owner to everyone he or she happens to meet (Knorr-Cetina 1988; Strang and Meyer 1993). The various structures of ideas and modes of thought that in a particular context

unite some people, while separating others, are a lot more important for implementation processes. Very often, it is the subjective understanding of who is to be trusted, and what constitutes legitimate behaviour, that decide which heating systems (or other technological artefacts) will be adopted.

In some of my previous writings (Henning 2000; 2006), I have described in more detail how human beings tend to listen to and trust those who are like themselves in some respects. In my opinion, one aspect of culture is the kind of rapport that can be found between individuals who share a common base of knowledge or focus of interest. This means that the sharing of culture is not reserved for those who grow up in the same country, or part of a country. Culture, in this sense of the word, simply consists of those experiences, habits and modes of thought that people share, to a greater or lesser extent, with others. As different people emphasise the importance of various parts of their experiences, thoughts and behaviour in different ways, that which is being shared is not only a question of quantity but also, and perhaps primarily, a question of subjectively experienced phenomena.

## **Limited options**

The interviews with house-owners who had recently replaced their heating systems make it very clear that the nature of such household decisions differs radically in several respects from what energy professionals, government representatives, and the public at large tend to believe. These decisions rarely, if ever, merely involve a 'rational' comparison between alternatives that are equal in all other respects than price. In the studied cases of decision-making, the range of alternatives to chose from often turned out to be very limited, or even perceived as non-existent.

First of all, a decision to replace one heating system with another did not concern the new heating system nearly as much as the importance of getting rid of the old one. Most families were afraid their old oil boiler or electric water heater would break down any minute, while some were starting to have a guilty conscience about using oil or electric heating. The second part of the decision, to decide on a new heating system, tended at first to consist of rather vague ideas of preferred criteria for the new system. Often, these concerned the future in some respect, such as hoping to find a system that was durable and would last until they were old, a system that would be cheap to run, that would make them as independent as possible or that would not damage the environment for future generations.

Secondly, for many of the householders, the decision-process was much more about eliminating inferior alternatives than making active choices between good ones. Firewood or bio-pellet would be excluded from possible alternatives by householders who saw these as time or space consuming, for instance, or heat pumps would be excluded by those who considered it a bad idea to use high quality energy, electricity, for heating.

Furthermore, in several cases, the options were restricted by circumstances or actors other than the householders themselves. They did not have access to district heating, or they found that the bed-rock under their garden was unsuitable for heat pumps.

In quite a few cases, the decision was also altered when the company that would have been their first choice did not respond properly.

Finally, and interestingly, some interviewees took their decision completely for granted; they actually did not experience this as a situation of choice at all. For example, someone would explain that, as their house had a chimney, they had replaced the electric resistance heaters with a bio-pellet stove. Another household had access to wood and therefore took it for granted that the oil boiler should be replaced with a modern boiler for firewood (others did not make such assumptions, though). Two households never considered anything but heat pumps. In one of these households, we were told that, to them, 'the rock was all that counted'. In the second household, a man stated that 'the heat pump is simply the smartest alternative'.

### **'Gut-feeling'**

As indicated by some of the previous examples, decision-making is also very much about 'gut-feeling': about deciding something that simply feels right. Still, I suggest that we look upon this feature of decision-making as no less 'rational' than other parts of it.

We have seen how decisions are made by individuals who continuously relate to, and interact with, the cultural context in which they live. These are not only formed in situations where individuals engage with their present environment, however. Conclusions are also based on those previous experiences that gave each individual his or her knowledge, insight and assumptions about the nature of the world and how to relate to it. Or, putting it differently, the experiences we all have and use in the present were obtained at earlier stages of our lives through interaction with the social, material and conceptual structures of that time.

So, how do we learn? How do we acquire such knowledge and sense for what seems the right thing to do? Milton has argued that perception should be seen an ecological process (2005: 32). Perception, she says, is what connects an organism to its environment in such a way that it is able to receive information, to learn from it. She gives the example of a newborn baby, who cannot come to know its mother as a source of food, warmth or comfort without interacting with her and receiving information from her. Milton suggests that emotion is part of this process, and that learning is dependent on emotion in two senses. First, learning does not take place without emotion, and second, emotions play an important role in helping to determine what we remember and therefore what we come to know about the world (2005: 33).

According to this reasoning, there is a two-way communication between bodily reactions and learning. Our bodies react to a stimulus, and we then perceive those reactions in our bodies and recognize them as feelings. And, conversely, the initial bodily reaction to a stimulus is a product of learning. For example, Milton tells us how she had learned to fear snakes during fieldwork in Africa and, as a result, how her leg muscles tightened whenever she walked through long grass (Milton 2002: 155; 2005: 36).

This does not mean to say that emotional experiences and expressions are generic rather than culture-specific. Human beings learn, in specific cultural contexts, to perceive

similar bodily reactions as different kinds of feelings and to handle them in particular ways (Milton 2005). They learn to interpret tears, for example, as a sign of happiness on one occasion but as a sign of sorrow on another. People also learn to express their emotions in a large variety of ways, or to hide what they feel in particular situations.

## **What non-decisions can do**

Important to the ongoing second phase of my research are the emotions, experiences, memories and present ideals that inspire men and women who create the home of their dreams from scratch. At present, I am following the process and procedure; what is happening and how do these house-buyers experience the different stages of these events? Later in the research process, I will also concentrate more on the dream itself: the ideal home. A second basic part of this project phase is to investigate the social structure of two very different housing companies, as well as the aims of those who work in these companies and their working conditions. I take a particular interest in the role and perspective of salespersons.

Decision-making, change and stability is studied in the context of buying and selling new prefabricated single-family houses. The construction, selling and purchasing of a new house include situations where the slow-changing material structures of houses and heating systems are being created. Furthermore, this is a context in which a large number of decisions have to be taken. While energy researchers within the Science and Technology tradition tend to focus on specific eco-buildings or sustainable buildings projects (see, for example, Guy and Moore 2005), the focus of this anthropological study is on more commonplace houses and procedures. The aim is also more in the vein of anthropological-sociological studies of energy researchers like Wilhite and Shove, to whom the primary challenge is a better understanding of the dynamics of increasing energy demand and the ways in which this demand is embedded in society (Wilhite and Shove 2000; Shove 2003).

My main conclusion so far, is that it is difficult or impossible to pinpoint the specific decisions that will lead to greater energy consumption than necessary for the thermal comfort and convenience of these future householders. One might say that this development is the effect of non-decisions, or at least an effect of decisions that have nothing or very little to do with energy for those who make them!

Few of those who have their own house built seemed to have realised, before they embarked on this process, how much work, time and anxiety it would actually involve. Still, they all radiate happiness and positive excitement when talking about their house-project or showing it to me. Several of these houses were enlarged from a basic house model. None of the house-buyers I have encountered so far have even mentioned the fact that they will have to use more energy to heat this bigger house. They are building their dreams and they are doing it now, so it is very tempting for them to add a few square metres here and there.

It is also the experience of the house companies that their customers tend to want large kitchens and living-rooms, but as few storerooms as possible. Some spokesmen for

these companies are certain that few would be willing to pay for the extra space needed for a hot water store (which is needed for flexible and energy-efficient heating systems). Furthermore, decisions about the heating system need to be taken very early in the process, long before other decisions that concern the interior of the house have started to be discussed. If hot water stores are going to be used, sufficient and suitable space should be drawn on the plan. If a flue and chimney are to be installed, the placing of the roof trusses is affected, and so on. However, at this stage, few, or no, heating alternatives are presented to the buyers. Since few of these customers have much knowledge or interest in heating systems, most of them agree to the heat pumps suggested by the house firm.

All of the salespersons in these companies are employed as consultants and have their own consulting agencies. Thus, to a large degree, each house project is the responsibility of these individual agencies and where they make their profit. There are a couple of consequences of this. Firstly, it is hardly possible for the house company to delegate someone to be their expert on heating systems. In order to get and keep customers, each of the salespersons needs to be as knowledgeable as possible about everything that concerns the construction, equipment and financing of new houses. Secondly, it means that they all depend on their customers to spread positive word-of-mouth, not merely about the larger company, but about themselves as trustworthy, knowledgeable and pleasant persons. Apart from their social ability, the safest way to get satisfied customers is to continue to use established co-operation with contractors, and to continue to install heating systems and other equipment that they know have worked before.

## **Conclusion**

The interviews with Swedish house-owners make it very clear that the nature of household decisions differ radically from what is popularly believed. They are rarely, if ever, merely about making a 'rational' comparison between alternatives that are equal in all other respects than price. On the contrary, such decisions are deeply situational, emotional, and contextualized. I have, in this paper, described some of the specific features of decisions that concerned the replacement of heating systems in single-family houses. It appeared that the options were usually very limited, or even taken-for-granted. These decisions had much more to do with getting rid of the old heating system than choosing a new one, and were more about eliminating inferior alternatives than making active choices between good ones.

Some of the culture and context-specific features of this kind of decision-making were further elaborated on in the sections about gender and trust. It was shown how men tend to have a right of veto, while women tend to play down their wishes and interests. The decisions are often triggered by neighbours, relatives or friends, and they often occur only after very long periods and sequences of thoughts, discussions, and events. Trust has a major part in these decisions, and people tend to trust and listen to those who are like themselves in some respects. I argued that this kind of rapport, which can be found between individuals that share a common base of knowledge or focus of interest, should be looked upon as one aspect of culture.

I further argued that, if we want to understand change, it is not enough to understand the nature of those decisions, activities and courses of events that can have a stabilising or changing effect on the existing social order. We also have to understand that very order: the structure which is both the condition for a modification and the continuity that is being modified. I proposed that the term 'structure' should be looked upon as stabilised cultural externalizations, but also as a comprehensive term for material, social, and conceptual phenomena that actually have a part in the lives of the people we study. In this version of the concept, there is an in-built inertia in social, material and conceptual structures, but they are not thereby static. There is no absolute dichotomy between that which is transient and that which is more difficult to change; these are only stable or quick-to-change in relation to one another.

These ways of looking at decision, change and stability were exemplified, first by the material structure of the house, and later by the social structures of gender patterns and company organisations. Thus, the single-family house was a limitation for those who had planned to replace their old heating system. However, the extent to which the house was perceived as limiting varied, and we saw examples of how householders tended to adjust these material structures to a greater or lesser extent. In the ongoing, second phase of the research, I am searching for those, seemingly, non-existent decisions that lead to increasing energy consumption in newly-built houses. Some of these circumstances are connected to the social structure, or organisation, of companies that sell pre-fabricated houses.

Decisions are not only formed when individuals engage with their present cultural environment, however. Most of the experiences we all have and use in the present were obtained at earlier stages of our lives through interaction with the social, material and conceptual structures of that time. Emotions were important when acquiring knowledge in the past, and emotions were important for our ability to remember it. Consequently, there can never be a division between emotion-based decisions and those which are more sensible-rational. Essentially, decision-making is always emotional by nature.

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## **POVZETEK**

Prispevek obravnava naravo gospodinjskega odločanja, kakor tudi povezave med odločitvami, spremembo in stalnostjo. Osnovan je na terenskem raziskovanju med 'vedskimi lastniki enodružinskih hiš, ki so v zadnjem času nadomestili stare ogrevalne sisteme. Še vedno poteka terensko delo v podjetjih, ki prodajajo pred-izdelane montažne hiše, kot tudi med moškimi in ženskami, ki kupujejo takšne hiše in ustvarjajo svoj sanjski dom. Razprava upošteva tudi pojav globalnega segrevanja in švedsko nacionalno energetske strategijo. Na splošno velja domneva, da je mogoče to strategijo uresničiti s pomočjo subvencioniranja in informiranja, ki gospodinjstva prepričajo o sprejemu modrejših odločitev glede porabe. Rezultati raziskave kažejo, da je proces odločanja precej bolj zapleten, saj so odločitve odvisne od spola, socialnih dejavnikov, omejenih možnosti, čustev ter od odločitev, ki jih sprejemajo drugi ali pa navidezno nihče drug. Poleg tega prispevek obravnava tudi, kako lahko počasi spreminjajoče se kulturne strukture omejujejo ali vplivajo na odločitve in dejanja posameznikov, oziroma kako jih te odločitve in dejanja tudi same spreminjajo.

**KLJUČNE BESEDE:** sprejemanje odločitev, sprememba, struktura, gospodinjstvo, energija

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