Energy and Environmental Awareness in Swedish and American Households

Rita J. Erickson, University of Minnesota

This paper compares energy and environmental awareness in two small towns in Sweden and Minnesota over time. In the early 1980s, Minnesotans were more anxious and exerted greater conservation efforts than the Swedes, but both are now bored with energy issues. They focus instead on environment—namely, recycling. Saving money continues to dominate decisions, but time is gaining priority in tradeoffs of energy, money, and time. Environmental concern is usually sacrificed to economics. Certain culturally-valued behaviors override both more conserving alternatives and economic considerations. Lacking the will to conserve, consumers say that they need, even wish for, some external authority to force them to do so. In general, consumers dislocate their personal activities from larger energy and environmental problems.

RESEARCH METHODS

Discussion is based on two periods of anthropological fieldwork I conducted in the small towns of Munka Ljungby, Skåne (pop. 2,600) and Foley, Minnesota (pop. 2,000). These suburbanizing, former agriculture supply centers were paired on the basis of economic and demographic similarities. Initial research took place in 1981–1982, and follow-up research a dozen years later, in 1993–1994. I collected information through the same variety of methods each time: participant observation, questionnaires, intensive study of core groups of households, and interviews with key informants. Fuel consumption data were obtained from utility companies and self-report.

Questionnaires were distributed community-wide to single-family dwellings (SFDs), the units of study. These addressed housing infrastructure, appliances, vehicles and travel, energy conservation, and opinions on energy and environmental issues. The 1990s questionnaires asked about pro-environmental activities as well.

Questionnaire response rate neared 60 percent in both communities over time, with the exception of Munka Ljungby in the 1980s, where the rate was 90 percent. The returned questionnaire sample sizes in Foley in the 1980s and 1990s were 243 and 140, respectively; in Munka Ljungby, 110 and 148. In the 1980s, questionnaires were mailed to all SFDs in Foley and hand-delivered to the 120 households in Munka Ljungby for which baseline housing data were available from an earlier energy study (Castensson & Hallin 1981). In the 1990s, questionnaires were mailed to 250 SFDs in each community, selected from telephone books using tables of random numbers.

Core groups of twenty households in each community were likewise selected at random from among the returned questionnaires for more intensive study. Both questionnaire and core samples are representative of housing stock and family life-cycle stages in their communities. Eight of the original core households in each location continued in the 1990s core. (Other original households were excluded to avoid domination of the sample by empty nesters.) Household members aged seven years and older kept checklists of daily energy-using activities for four weeks in four different months and were interviewed about their behavior patterns and energy use choices. Core householders were asked about other qualitative issues as well, such as the connections they perceived between energy and environment, time, and economy; obstacles to conservation; consumption of goods; and quality of life.

Interviews with key informants (merchants, educators, journalists, utility company personnel, and government officials) provided information about larger trends and the contexts of household decisions. The technique of participant observation (living with a family in each town for several months and speaking Swedish in Munka Ljungby, or Munka, as residents say) gave me a first-hand sense of daily life and access to behind-the-scenes information.

ENERGY IN THE 1980s

Confusion and Anger in Foley

The early 1980s were a confusing and frightening time for most Foleyans. Shocked by rocketing fuel prices, they struggled to make sense of conflicting reports about energy supplies and the contradictory energy stances of the Carter and Reagan administrations. Further, each household stood alone, lacking the economic support and the disinterested, authoritative information provided by the Swedish welfare state. Resenting their dependence on oil and utility companies, the great majority of core households expressed frustra-

tion with what they said were ''huge profits'' made by ''exploiting'' customers. Some stated flatly that conservation only led to price increases due to the demand for corporate profits. Foleyans conveyed feelings of personal helplessness in the face of power wielded by corporate interests and stressed the improbability of the emergence of a consumer movement:

I'm cynical. Utility companies pay off to stop research on things that might hurt them [alternative fuels]*, that might loosen their grip on the customer. Everybody knows it.*

To be honest with you, I figure there's nothing I can do about it because they're just too big for us. Other than if we'd all band together. . . But what are the chances of that happening? Zee-ro!

Another theme in Foley at that time was suspected complicity of government and big business to exploit the consumer. Irritation with government and corporations for failing to anticipate fuel shortages was also expressed. Formerly ''penny cheap'' (one utility's motto) and abundant, fuels became costly, and supplies unpredictable, for no reason apparent to Foleyans. Further, future price hikes and rationing were rumored. Foleyans reacted with hostility, many reasserting a sense of personal power through claims that they would refuse to conserve, or even that they would increase fuel consumption. The following statements were typical:

I'm paying my bill. They're not. So I'll do what I damn well please.

Other people can walk to work if they want to. Not me. I'm no sucker, jumping just because somebody tells me to. Like they say, ''It's all jive—Drive eighty-five!''

Despite their rebellious bluster, Foleyans *did* conserve, performing extensive retrofits on their homes. They also reported new conservation behavior, such as lowering indoor temperatures, using passive solar heat, filling clothes-washers and dishwashers before use, and monitoring lights and televisions. Unfortunately, they expended much effort on measures which yielded negligible fuel savings—such as turning off stove burners before the end of cooking time or listening to intercept the automatic dry cycle on dishwashers. Foleyans expressed weariness with what they called ''treading water,'' their efforts just keeping fuel bills level.

Solidarity in Munka Ljungby

Formalized in the Energy Bill of 1975, Swedish energy policy was based on the dual goals of reduced oil dependence and development of indigenous, renewable energy sources. The Swedish state launched intensive research and development programs, while its oil reduction campaign saturated the media with conservation reminders and tips. The message sent out was that every citizen could, and *should*, help in this effort. State-salaried, locally-positioned advisors on energy conservation (*energisparrådgivare*) provided information and conducted free home energy audits. State aid, including both subsidies and no- and low-interest loans, was established for citizens wanting to retrofit their homes. In contrast with U.S. vicissitudes, Swedish policies and programs were constant, even when the Social Democrats' decades-long dominance of Parliament was interrupted in 1978.

Munka Ljungbyans trusted the equity of their government's policies, which were based on extensive research and consultation with representatives from all sectors of society. They expressed support for the call for national solidarity in reducing oil dependence. In contrast to the situation in Foley, where citizens waited each fall to learn if fuel assistance would be available for the coming winter, Munka Ljungbyans could depend on consistent state aid. They conveyed a sense of personal power as well, part of the legacy of a history of strong and effective folk movements in Sweden (Hallin 1994).

The greater economic security which Munka Ljungbyans enjoyed, along with their awareness of Sweden's highly efficient construction practices and appliances, resulted in more casual attitudes and fewer energy conservation efforts than in Foley. Munka's well-constructed houses needed only spot retrofits, and fewer Munka Ljungbyans than Foleyans reported such practices as lowering thermostat settings when leaving home or monitoring lights.

ENERGY IN THE 1990s

By the 1990s, both Foleyans and Munka Ljunbyans were bored with the topic of energy, largely due to contained fuel prices. In fact, gasoline and heating oil prices (in absolute dollars) *declined* in Foley between 1981 and 1994! While gas and oil prices in Munka Ljungby rose through the 1980s, they did so gradually, and as a result of tax increases rather than scarcity. Surprisingly, electricity prices were initially lower in Munka than in Foley. Although prices had nearly tripled by 1994, and are expected to rise again as a consequence of Sweden's electricity sales to other European Community members and domestic deregulation, most Munka Ljungbyans remain unconcerned and unmotivated to conserve electricity.

In the 1990s, lessened concern over energy supplies and scant media attention to energy issues further diminished the importance of energy in the minds of consumers. Also dampening Munka Ljungbyans' interest in energy was the quick success of Sweden's oil-saving campaign. By 1983,

Sweden already had nearly reached its goal of reducing oil imports from 70 percent to 40 percent of total energy consumption (Swedish Institute 1983). This oil, however, was replaced largely with nuclear-generated electricity. Development of alternative fuels dwindled, and it is now doubtful that the 1980 national referendum decision to decommission all of Sweden's twelve nuclear reactors by the year 2010 will be implemented. In the 1990s, Munka Ljungbyans sounded a little like Foleyans did earlier, questioning reversals in government positions:

In the eighties, we waited for the renewables. Nothing happened. There is no real energy policy today. The government now says there is lots of energy, that we don't need to save, there's lots of electricity: ''No problem!'' Can I trust that?

REBOUND AND TAKEBACK

Despite contained fuel prices, rebound behavior (conservation declines as energy costs do) was marginal in Foley and Munka residences. Energy-conserving practices adopted in the 1980s largely persisted. For example, 1990s daytime indoor temperature averages rose only by half a degree F in each community, and nighttime averages stayed the same in Foley while decreasing by half a degree in Munka. (Average temperatures in both communities clustered in the upper 60°s F.) Additionally, residents reported in the 1990s that they continued to run clothes-washers and dishwashers only when full.

Takeback effect (gains from improved operating efficiencies are offset by intensification of fuel demand in other dimensions) was small with regard to major appliances. Initial purchase price was the determining factor in appliance selection in both Foley and Munka Ljungby over time. (Similar findings for Norway and Japan are reported by Wilhite et al. 1995.) In the 1980s, appliance energy demand played a minor role in selection decisions in Foley, but none at all in Munka, where customers expressed confidence in the Swedish Consumer Council to approve only highly-efficient models for the market. By the 1990s, efficiency improvements had narrowed the range of annual costs of major appliance operation so that energy considerations were even less important to Foleyans. As one Foley hardware merchant recounted:

Customers think, ''Well, for eight dollars more per year, I'll get the nineteen-cubic-foot refrigerator instead of the seventeen-cubic-footer.''

While this sort of direct takeback is relatively minor, the increased saturation of appliances in both communities should be noted, in terms of energy and resource demand. Foley households with central air-conditioning more than tripled, rising from 8 to 29 percent of the questionnaire sample. Notable in Munka Ljungby was the tumble-dryer, which doubled to a 40 percent saturation in the 1990s. (No Munka household had air conditioners, available only by special permit in Sweden. Ninety-one percent of Foley households had tumble-dryers.) Ownership of duplicates, notably television sets, rose markedly in both communities. Specialized kitchen gadgets proliferated.

Both rebound and takeback dynamics were very much in evidence with regard to vehicles. Foleyans and Munka Ljungbyans reported driving both faster and more frequently in the 1990s. While using cars for in-town errands was much more common in Foley, this habit was on the rise in Munka. In the 1980s, Foley core household members used their cars on 81 percent of local trips, while Munka Ljungbyans drove less than half that often, 37 percent of the time. In the 1990s, Foleyans drove slightly more than they did earlier, on 88 percent of local trips, while Munka Ljungbyans drove substantially more, 54 percent of the time. (It should be noted that Foleyans made over three times as many local trips as Munka Ljungbyans.)

Evidencing takeback were the rise in multiple vehicle ownership in both communities and the increasing popularity of trucks and vans in Foley. Earlier a rarity, the two-car household constituted 38 percent of the 1994 Munka questionnaire sample. While two-car households were common in Foley even in the 1980s, in the 1990s more Foleyans owned trucks and vans, significantly more fuel intensive than cars. Nearly 40 percent of Foley's 1993 questionnaire sample owned a truck, and 10 percent owned a van, as a second or third vehicle.

FOCUS ON THE ENVIRONMENT

If Foleyans and Munka Ljungbyans were bored by energy, what *did* they want to talk about? Environment! In Sweden in the 1980s, an ''upstanding citizen'' (*ordentlig medborgare*) conserved energy. In the 1990s, it is doing one's part for a cleaner environment. Sweden, a world leader in environmental issues and research, takes international responsibilities seriously. Sweden established a comprehensive carbon tax in 1990. And in response to Agenda 21, which calls upon every country to ensure that its activities do not cause environmental damage anywhere else, the state requested that all local (*kommun*) governments develop action plans. Government messages about the environment flooded the media, as one Munka Ljungbyan testified:

In the eighties, we got daily propaganda. . .all about energy. Now, it's the <u>environment</u> we are faced with at every turn. We are <u>drowning</u> in information!

While Foleyans' environmental awareness grew over time, it stayed well below that of the Swedes. Core households were asked, ''What connections do you see between energy and the environment?'' This question stumped most Foley core households in the 1980s, although a few referred to air pollution caused by fossil fuel use or the depletion of local wood supplies by increasing numbers of wood-burning households. In contrast, most Munka households at that time cited various types of environmental damage resulting from energy use, and placed their examples in broader contexts than Foleyans did.

By the 1990s, most of Foley's core households could describe at least one environmental consequence of energy consumption, and a few households conveyed a systems perspective as well. However, every Munka household named a variety of energy-environment interactions, and more Munka Ljungbyans affirmed and discussed moral dimensions of environmental issues, both in the 1980s and the 1990s.

Many Foleyans and Munka Ljungbyans equated environment with recycling, the topic and activity of choice in both towns. Munka Ljungbyans had a recycling infrastructure which was both more convenient for participants and more comprehensive in the range of commodities accepted. In 1988, their *kommun* established a recycling program which offered both curbside pickup and a recycling center in the city of Ängelholm, three miles away. Earlier, Munka Ljungbyans brought their recyclables to a collection site in the center of town. A private business opened a recycling center in Foley in the mid-1980s, saving Foleyans the thirty-mile round-trip to St. Cloud. In the 1990s, residents expressed dissatisfaction with this center because they now had to pay fees to drop off commodities for which they had received compensation earlier. (Curbside recycling was not introduced in Foley until 1995, after fieldwork was completed.)

Per-Olof Hallin, cultural geographer at Lund University in Sweden, visited Foley and Munka Ljungby in 1993–1994 to investigate environmental concern and engagement in pro-environmental activities. Hallin (1995) found that both concern and behavior were more widespread in Munka Ljungby than in Foley, but also found that there was no correlation between expressed concern and reported behavior in either community.

Hallin's environment questions appeared on the community questionnaires. Twice as many Munka Ljungby as Foley respondents (roughly, 80 vs. 40 percent) reported that they ''always'' recycle paper and glass, for which they receive no payment. And only 1 percent of Munka Ljungbyans, compared to over 20 percent of Foleyans, ''never'' recycle these commodities. However, the percentage of Foleyans always recycling aluminum rises to 75, closer to Munka's 83 percent and reflecting the strong incentive that money represents. Munka Ljungbyans were also more likely to avoid using chemical pesticides, to compost yard and kitchen waste, to walk or cycle on errands of less than half a mile, and to bring their own bags to the grocery store. (There was no pro-environmental activity that Foleyans engaged in more intensively than Munka Ljungbyans.)

ENERGY-MONEY-TIME TRADEOFFS

Residents described the tradeoffs they made among energy, money, and time in their everyday choices. Although money continued to dominate such decisions, time had gained greatly in importance by the 1990s. In contrast, energy had nearly vanished from consideration.

The Primacy of Price

In the 1980s, two thirds of Foley's core households, and one half in Munka Ljungby, identified saving money as their primary motive for energy conservation. (The balance of Foley households said that they conserved to protect fuel supplies or natural resources. In Munka Ljungby, six households said it was environmental concern which motivated them, and the remaining four households said they were not actively conserving energy.) By the 1990s, however, saving money had become the primary conservation motive for 18 of 20 core households in both Munka Ljungby and Foley. (The remaining households said they conserved because of environmental concern.) Typical statements from Foley reveal that it is the price of energy which maintains awareness and influences behavior:

Our level of concern follows the price of gas!

There's not the same carefulness about driving—People just pick up and go. We know there's a need to conserve, but [low] *gas prices lead to more driving.*

Munka Ljungbyans also spoke of price as being central to their awareness:

We think about energy when the electric bill comes, when the gasoline statement comes. We don't think every day, ''How can we save energy?''

I asked how much higher prices would have to be to induce people to conserve. ''Double what they are now'' was the dominant response from both communities.

Growing Scarcity of Time

While saving money continues to be the primary goal, time is now gaining importance in trade-offs of energy, money, and time. In the 1980s, more Foleyans than Munka Ljungbyans reported a continuous struggle with time. Foleyans said that they were ''always on the run'' and complained about their hectic pace, while Munka Ljungbyans emphasized their ''rational'' use of time.

Households were asked, ''What connections do you perceive between energy and time?'' In the 1980s, two thirds of Foley core households, and one third of Munka households, said that they used energy in order to save time. By the 1990s, nearly all of the Foley core households, and two thirds in Munka, said that they did so.

The following statements from Foley typify responses to the energy-time question and reveal the dominance of time over energy:

It's more important to save time than to save energy. It should be the opposite, if I look into my conscience.

While we don't constantly try to save time, it's more precious to us than energy. . .If we need to be somewhere on time, we'll speed—or take two cars if necessary.

Munka Ljungbyans made similar comments on the energy-time relationship:

We use energy to save time. It's demanded in today's society that all goes fast, starts on time. The boss won't accept, 'I'm late because I cycled.' So, I drive.

I waste more energy when I'm in a hurry, stressed . . . and when I feel time is short.

Foleyans reported consuming energy in order to save time by driving faster or driving on local errands, or by using power tools and appliances. In both Foley and Munka, saving time was given as the reason not only for using the dishwasher, but even for using running water when washing dishes by hand, rather than turning water on and off as needed. Clothes dryers generally save time spent hanging and ironing clothes, Foleyans felt, while Munka Ljungbyans used their dryers only when pressed for time. Reports of energy consumed to save time were not as numerous in Munka, nor did Munka Ljungbyans calculate down-to-the-minute savings.

By the 1990s, the pace of life in Munka Ljungby had accelerated noticeably, although it still had not reached Foley's. Residents of both communities commented on the consequences of the sizable increase in two-income households: even less time, and thus less opportunity to save either energy or money:

Energy gives me more time for doing what I enjoy. It takes more time to conserve energy. A lot of people would rather spend the money [for energy to gain time] *especially working couples.* (Foley)

Nobody bothers too much about electricity: ''I can pay, so I certainly can have the lights on.'' Especially those in bigger homes, with two people working. (Munka Ljungby)

A Munka informant clearly articulated the trade-off and the first priority of time for him:

I save time by flying to Stockholm instead of going by train. I sometimes try to save time with the car, also. One pays for time with money and with energy. It's worth it.

Energy no longer enters into most householders' calculations. For example, one Munka man told me about his parents making several round-trips to a rural acquaintance's home in their car, ''using lots of gas to get 'free' wood. They just don't think about 'energy' at all.''

Environmental Concern

Environmental concern influences household decisions to some extent, but is usually sacrificed to economics. Householders choose what gains them time or money. For example, the chief obstacles to recycling which Foleyans cited were the time it demanded and lack of payment (Hallin 1995). Many Munka Ljungbyans drive longer distances to discount stores or choose products on sale over environmentally-friendly alternatives.

Foleyans described their environmental awareness as new and limited. Unaware of or ignoring the role of their personal consumption levels and activities, they focus on industry as the cause of environmental damage. Most households do not realize that industry is them, manufacturing products to satisfy consumer demand. Those few seeing the larger picture stressed that others do not:

I don't think most people realize that it's all connected. We're going to have to deal with this [environmental damage] *later in life. People don't think about the fact that it's a closed system.*

Some Foley informants expressed skepticism about the reality of ozone depletion or the greenhouse effect, or questioned that they were caused by human activity:

It's hard to convince [us] *that there's a warming trend with the last two summers so cold.*

Some say that the hole has been there for years and years, not due to us at all.

Just as Foleyans attributed environmental damage to removed and abstract industrial processes, they voiced concern about environmental problems in distant locales, such as the destruction of South American rain forests, threatened whales, and Los Angeles smog. Munka Ljungbyans were overwhelmed by the energy-environment question in the 1990s because they were aware of so many connections. Their responses encompassed pollution of various kinds, global warming, depletion of the ozone layer, increased allergies and health problems, and harm done to other species. They gave more sophisticated answers than Foleyans did, revealing awareness of pervasive and subtle dynamics, as illustrated by the statement below:

The less energy you use, the better it is for the environment. Right now, we are doing uncontrolled damage everywhere. Critical are auto emissions and the burning of oil. Factories burning their fuels do damage, of course, but so do motorists—and even the pleasure cruises along Finland's coast leave poisons which kill the birds.

Some confusion and doubt about environmental problems existed in Munka as well as Foley, however. While no Munka core household expressed skepticism about the reality of a hole in the ozone layer, several confessed to being unclear about this issue.

Like Foleyans, Munka Ljungbyans largely focused their environmental concern on distant conditions, but some referred to problems at home as well. Northern Sweden received radiation from the Chernobyl accident of 1986, and Swedes were aware of proscriptions on reindeer meat and northern milk, mushrooms, and berries. Likewise, many Swedes had seen in their own forests what they believed were the consequences of acid rain and had read about salmon dying in the polluted Baltic.

CULTURAL MANDATES FOR CONSUMPTION

Energy researchers from the social sciences address the larger cultural factors which shape decisions made by individual consumers. Lutzenhiser (1992), for example, underscores such cultural perspective as integral to the construction of sound energy use theory. Wilhite and his colleagues (1995) describe the energy implications of entrenched and valued practices related to light and hot water in Norway and Japan. And Hallin (1994) frames the potential for the success of recycling programs in terms of their congruence with deep-seated values. While they can differ in content for Sweden and the U.S., certain culturally-valued and socially-sanctioned choices override more conserving alternatives in both locales. Further, the expression of certain cultural values can also take precedence over economics. I have discussed a range of cultural factors fostering consumption in Foley and Munka Ljungby elsewhere (Erickson 1985, 1987, 1997), but will focus here on two: the Swedish emphasis on cleanliness and freshness, and the American conundrum that time scarcity is socially prestigious but personally enervating.

Cultural mandates for cleanliness and freshness pervade Sweden, finding expression in housekeeping, laundry, and ventilation practices. Housekeeping standards are highly energy-demanding in Munka Ljungby, where informants reported using ''very hot water to get the dishes really clean,'' vacuuming longer to ''get the house properly clean,'' and running their kitchen fans whenever cooking in order to clear the air of smoke and odors and to prevent grease spatters. The term *städmani* (cleaning madness) was used by several Munka informants to describe the local penchant.

Munka Ljungbyans continued to select higher laundry temperatures than Foleyans over time. In the 1990s, half the Foley core households washed their clothes in cold water, while none in Munka did so. Munka Ljungbyans all washed whites in hot water—often 90° C (194° F!)—in order to satisfy Swedish standards of truly *white* whites. Also, some Munka Ljungbyans were reluctant to try environmentally-friendly laundry or dishwashing detergents, for fear of falling short of the goal of spotlessness.

Ventilating houses (*vädring*) is practiced widely in Sweden. Over time, all Munka core households reported ventilating by opening a door or windows, and the majority said they did so daily. Duration ranged from five to sixty minutes. In the 1980s, two thirds of the core sample ventilated without turning down their radiators, despite intensive government reminders to do so—and in the 1990s, slightly more than two thirds did so. Interestingly, those who said that they adjusted their radiators also had shorter ventilation durations.

Harried by the extreme time scarcity their way of life engenders, and calculating time savings down to the minute, Foleyans lack the psychic energy that it takes to conserve. According to them, time stress results in ''poor planning'' and ''lack of organization''—reasons given for energy-intensive choices more often in Foley than in Munka Ljungby.

A typical Foley statement reflects the dominance of time in energy use decisions:

Why do we drive uptown, two blocks away? To save time. Saving time has become more important than saving fuel or money, because there' s so much going on, and we try to

do it all. I think, 'you're down forty minutes' if we walk to piano lessons and back.

The reference to being ''down forty minutes'' supports Staffan Linder's (1970) hypothesis, that workplace calculations for economy and efficiency have pervaded other areas of life. Even when actual time saved is negligible, the inclination to hurry remains. As one Foley informant related:

You go over the speed limit by ten miles to St. Cloud—You save about three minutes! But I'll still do this. I don't know why.

While Foleyans lamented the pace of their lives, they also valued being busy. An overly-full schedule confers prestige, affirming that one is important and needed by others. Statements from Foleyans reflect the conflict between social and personal needs:

Bring busy is a ''good'' thing to be in Foley. Everybody gripes about it, though. We've lost control over how busy we are.

Yes, it is still important to be busy, to be involved in church, with your kids' activities, and so forth. You feel obliged to volunteer for things. It's a curse to be so busy, though. You're doing what you're supposed to be doing. But inwardly, you're going crazy.

In Foley, energy is used both to save time and to compensate for the stresses of daily life. Foleyans said they chose baths or took ''long'' showers, for example, because these were more relaxing, and they needed badly to relax. Echoing a common sentiment, one Foley women stated that she used her electric mixer because it was ''fun, something you don't get enough of in the kitchen—or anywhere else!''

WANTING TO BE FORCED TO CONSERVE

In both communities, residents expressed needing, even wanting, to be forced to conserve energy and to take pro-environmental actions. They stressed how hard it was for individuals to break ingrained habits and to make choices against the flow of social opinion. Foleyans said that behavioral change would come about when some external force limited or made choices for them:

You know, I was secretly kinda glad when we had the energy crisis. It forced us to do something we wouldn't otherwise have done, to cut back . . . to cut out the fat. There's too much waste, everybody says that, but nobody does anything.

To really change, most of us are going to have to be ''helped'' to change—to be made to change . . . Good intentions [about using less and recycling] *but hard to carry 'em out. You get caught up in the hustle and bustle and . . . don't follow through.*

Munka Ljungbyans also stressed the need for external force in order to conserve energy:

It's not just supplying me with information. I must be forced to [use less energy]. *It doesn't help if I do something and my neighbors do nothing. We must all do something in an imposed way.*

People have it too good. They don't feel they are pressed, forced, to decrease. They must be forced. The state should provide [economic] *help, though.*

Another recent study also revealed such openness to imposed change. In Kempton, Boster, and Hartley's examination of environmental values in American culture, three quarters of the general public sample indicated that they accept the idea of forcing changes in lifestyle for the sake of the environment (1995, 134). Foley informants said that while they would resent constraints on their behavior, some external arbiter would be needed to effect change. One reason for this, they stated, was that energy and environmental problems seem vast and incomprehensible to individuals.

Foleyans debated just who the larger controlling entity should be: government, business, environmental groups, or educators. Suspicion of government, its lack of accountability and reluctance to take true initiative, characterized this debate and is reflected in the following quotations:

Not the government. Lobbyists have made it out of whack. Leaders don't make real changes because they want to stay in office.

Taxes on energy would always go somewhere else. If the money went to research for alternatives, o.k., I'd pay—but it won't. We don't have any control on that.

Foleyans identified the private sector as being more efficient than government at, for example, operating recycling services. However, corporations were also suspect because of their central profit motive and suspected collusion with government.

When asked who should take the lead in solving energy and environmental problems, Munka Ljungbyans nearly unanimously stressed the government over individuals or private organizations. While they shared some of the Foleyans' irritation with government and described declining confidence in Swedish politicians, they said that government could synthesize research findings and input from all sectors of society in order to devise strategies both workable and

equitable. Additionally, they felt that government could best address the diffuse, long-range, and international nature of energy and environmental problems. And critically, it was government that could mandate desired changes, both for industry and for citizens, while supplying them with relevant information.

It's ultimately everybody's problem, but government should take the lead. Research is important, and that has to be organized, and results communicated, on a larger scale . . . Information must be provided in combination with laws, so that people know how serious it [the environmental situation] *is.*

Swedes are so authority-oriented . . . so law-abiding . . . so Lutheran! If the kommun says, ''Don't water,'' then it's a crisis. Otherwise, people won't respond. So, government must lead.

Munka Ljungbyans deemed initiative as well as cooperation from individual citizens essential. Unlike Foleyans, they could cite recent success of consumer efforts and organizations in bringing about change—the most recent examples being garbage and packaging reduction. Like Foleyans, however, Munka Ljungbyans lamented the politic indecision of politicians:

Politicians could decide, and should decide, about energy. But they won't. It isn't workable politically . . . Politicians sway back and forth, back and forth.

DISCUSSION

The Swedish welfare state and American capitalism represent quite different contexts for personal energy and environment decisions, but both are essentially industrial consumer societies. Their members choose money and time over energy and environment because they have learned that this is what constitutes optimal functioning in society.

While Foleyans' perspectives on energy and the environment have broadened since the 1980s, Munka Ljungbyans continue to be more international and more holistic in their outlooks. Neither Foleyans nor Munka Ljungbyans, however, associate their personal activities with larger energy and environmental issues. Instead, both groups focus their concern on distant environmental problems.

This dislocation of the personal from the more abstract fosters internal contradictions. For example, while roughly 90 percent of questionnaire respondents in both Foley and Munka Ljungby agreed that environmental protection is more important than economic growth, economic factors (time and money) clearly override environmental considerations in their everyday decisions. Further, 71 percent in Foley agreed with the statement that they should consume more to foster the economy. (Just 23 percent of Munka Ljungby respondents agreed, feeling that it is more the job of the state than of individual consumers to stimulate the economy or doubting that increased consumption can solve problems.)

Another inconsistency stems from Foleyans' and Munka Ljungbyans' failing to recognize the energy and environmental demands of the goods they consume personally. Hence, they agree with the need to reduce consumption and lament consumption ''excesses'' in the abstract, but disagree with the idea of changing their own consumption levels. Also, I would argue that respondents also do not *want* to recognize the connection, assume responsibility, and make changes in their own lives. Foleyans and Munka Ljungbyans both challenged the suggestion of any change in personal living standards by exaggerating it and then stoutly rejecting the idea of returning to manual household labor and outhouses.

Participants in the Kempton, Boster, and Hartley survey also demonstrated this contradiction. A strong majority (87 percent) of their general public sample agreed that Americans would have to reduce consumption, but only a minority (40 percent) agreed that they would have to reduce their personal standard of living in order to solve environmental problems (134).

While some Foleyans and Munka Ljungbyans endorsed conserving energy and other resources for their descendants, none advocated conservation in order to achieve more equity in global resource distribution now. And the world's burgeoning population was brought up by only one informant in Munka Ljungby, who saw it as an obstacle to achieving sustainability.

Gaps in consumer awareness are new ''missing links'' for anthropologists to address. Central among these are the recognition of the embodied energy and resource demands of consumer goods; of the personal change implied by admirable, abstract goals; and of the material and spiritual ties that link members of industrial societies with the rest of the world.

ACKNOWLEDGMENTS

I wish to thank the National Science Foundation for a two-year research and writing grant (NSF DBS-9207519) from its Anthropology and Human Dimensions of Global Change Programs. Sincere thanks also to other contributors to the Foley-Munka Ljungby project over time: The Swedish Building Research Council, American-Scandinavian Foundation, Fulbright Foundation, Swedish Institute, University

of Minnesota, and Center for Urban and Regional Affairs (Minneapolis).

REFERENCES

Castensson, R. and P.O. Hallin. 1981. *Energiflödesanalys: Energikällor, omvandlare och användare i Munka-Ljungby*. (Energy Flow Analysis: Energy Sources, Converters, and Users in Munka-Ljungby) Stockholm: The Swedish Building Research Council.

Erickson, R. J. 1985. *Energy Use in Cultural Context: An Ethnographic Comparison of Households in Minnesota and Sweden*. Ann Arbor, Mich.: University Microfilms International.

Erickson, R. J. 1987. Household Energy Use in Sweden and Minnesota: Individual Behavior in Cultural Context. In W. Kempton and M. Neiman, eds. *Energy Efficiency: Perspectives on Individual Behavior*. Washington, D.C.: American Council for an Energy-Efficient Economy.

Erickson, R. J. 1997. ‘‘ ‘Paper or Plastic?’ Energy Use and Environmental Awareness in Sweden and America.’’ Forthcoming from Bergin & Garvey, Westport, Conn.

Hallin, P.O. 1994. Livsstilar och Miljö: Hushålls miljöhandlingar i Sverige och USA. (Lifestyles and Environment: Environmental Behavior in Swedish and American Households) *Rapporter Och Notiser* 131. Department of Economic and Social Geography. University of Lund, Sweden.

Hallin, P.O. 1995. Environmental Concern and Environmental Behavior in Foley and Munka Ljungby. Paper presented at the Nordic Conference on Society and Environment, Gothenburg, Sweden. June.

Kempton, W., J. S. Boster, and J. A. Hartley. 1995. *Environmental Values in American Culture*. Cambridge: MIT Press.

Linder, S. B. 1970. *The Harried Leisure Class*. New York: Columbia University Press.

Lutzenhiser, L. 1992. A Cultural Model of Household Energy Consumption. *Energy* 17 (1): 47–60.

Swedish Institute, The. 1983. Energy and Energy Policy in Sweden, 1983. *Fact Sheets on Sweden* series. Stockholm.

Wilhite, H., H. Nakagami, T. Masuda, Y. Yamaga, and H. Hanada. 1995. A Cross-Cultural Analysis of Household Energy-Use Behavior in Japan and Norway. In A. Persson, ed. *Proceedings of the 1995 ECEEE Summer Study*. Stockholm: The European Council for an Energy-Efficient Economy.