

Men Purchase, Women Use: Coping with Domestic Electrical Appliances in Rural China

Xiujie Wu

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Abstract Based on a field study in a village in the northern plain of China, this paper reviews three different types in how Han-Chinese rural people have coped with domestic electrical appliances during the last 40-odd years of electrification. The aim of this paper is to offer an ethnographic study of the complex relations between technology and social life in a Chinese rural setting and to explore the logic and dynamics whereby rural populations confront and integrate new technical products into their everyday life. This paper is divided into three main parts: following the introduction on the “everyday technology approach” and background information about the field site, the author next gives a brief historical description of the electrification process in rural China. The third part is dedicated to the ethnographic data concerning five appliances: electric light, water pump, TV, washing machine and water boiler-cooler. The paper concludes with a discussion of issues concerning appropriation of new technology in the wider background of society/economy/state and everyday habitus, questioning how well conventional oppositional dichotomies like female/male, masculinity/femininity serve as analytical frameworks.

男人购买，女人使用 —— 一项关于中国农村家用电器使用方式的研究

本文的写作基础是作者对中国北方一个汉族村落的社会人类学田野考察。由于中国农村的电器化过程长达四十年之久，农村人群购买和使用家用电器的条件和方式呈现出非常多元的状态。作者选择考察日常生活五种电器——电

The empirical data of this paper stems from my fieldwork in 2003 and 2004 (funded by the Volkswagen Foundation) and in 2006–2007 (funded by the Max Planck Institute for Social Anthropology). I thank Francesca Bray and Mareile Flitsch for their stimulating suggestions and comments and for polishing the language in this paper. I would like to express my deep appreciation to my dedicated English teacher James Sullivan for his patience in helping me render my ideas on paper. The constructive criticism and suggestions of two anonymous referees contributed essentially to the improvement of this paper. I am obliged to their meticulous comments and generous encouragement. Anja Sing also contributed to the language proofreading of this paper. But for any shortcomings or misleading interpretations, I alone take full responsibility.

X. Wu (✉)

Max Planck Institute for Social Anthropology, Advokatenweg 36, 06114 Halle/Saale, Germany
e-mail: wuxj@eth.mpg.de

灯、水泵、电视机、洗衣机、饮水机一来分析三种不同类型的购买和使用方式。本文的目的在于为研究中国农村社会环境下技术与社会生活的复杂关系提供民族志层面上的实证材料，并探讨农村人群在日常生活中面对和接受新技术产品时所遵循的逻辑及其动力。

全文由三个主要部分组成：一、本文的理论背景即“日用技术研究方法”以及与田野调查相关的背景信息二、农村电气化的历史过程；三、对农村人群购买和使用五种家用电器方式的民族志描写。作者认为，在研究新技术产品如何被接受的过程时，有必要将其置于社会/经济/国家这些大背景之下，同时也必须注意到这一过程与日常惯习之间的内在关联。作者发现，在家用电器进入农村家庭的过程中，男女性别二元对立出现缓解，农村家庭中夫妻之间的合作互助关系得以加强，尽管男性与女性在购买和使用这些电器产品上各自有不同的想法和做法。

关键词：社会性别，家用电器，电气化，中国农村

Keywords Gender · Domestic appliances · Electrification · Rural China

1 Introduction

Half a century ago, villagers in northern China were enormously perplexed by the riddle “though the lamp hangs down, no (lamp) oil will spill out” (*deng tou chao xia bu lou you* 灯头朝下不漏油) because this description was far beyond their everyday experience and logic. For the majority of the villagers, it took some time to figure out the correct answer: electric light. Only at the beginning of 1970s did electric bulbs begin to light the living rooms of most villagers, providing a totally different lighting quality from that of the conventional oil lamp. From then on, the new term *dian* 电 (electricity) and knowledge related to this new kind of invisible, powerful and dangerous energy entered into everyday village life. Following the electric light, more and more electrical appliances such as the water pump, TV, ceiling fan, washing machine, water boiler-cooler and induction cooker have been adopted by villagers and have even become an indispensable part of their daily life.

Based on an anthropological field study in the village called Cheer in northern China, this paper describes how male and female villagers have coped with different electrical appliances during the last 40-odd years of electrification and explores the logic and dynamics whereby rural populations confront and integrate new technical products into their everyday life. Following an introduction to the approach and the field site of this study, I give a brief history of electrification in China followed by ethnographic data concerning the three ways of coping with electrical appliances, highlighting one or two core appliances as examples. Through these ethnographic descriptions, I justify studies of the appropriating process of minor technological products like domestic appliances and show how they could bring science and technology studies (STS) and social anthropology closer together. They are instructive for understanding how non-dramatic changes of technical resources are step by step translated as well as integrated into the habitus and become a part of social processes and how changing materialities reconstruct expressions of masculinity and femininity within the conjugal couple, the village community and in relations with wider society/economy/state.

2 Theoretical and Methodological Pinpointing

In aiming at insights into routine everyday life practices, social anthropologists of technology should take into account the research approaches to technology developed and improved in neighbouring disciplines such as STS and history of technology, as well as European Ethnology. Whilst STS holds that science and technology must be viewed *in context* (Bowden 1994: 75), within the American tradition of cultural anthropology, technology has generally been viewed as a context for, rather than a central part of, culture (Bray 2007: 42). It seems that we are still waiting for fruitful results from complementary studies across the two disciplines. How do people perceive a new technology/technical product under certain conditions based on available material and knowledge? Following which logic and reckoning of value, will a new technology/technical product be incorporated into people's actual living conditions? In this sense, it is especially challenging as well as illuminating for our understanding of the intersections amongst people, technology, society and the state to investigate social groups in non-western regions, who were conventionally untouched by technical developments but now have no choice but to confront the endless new technical products of western style (not only the devices but also their designed functions) in their daily life. The experiences of such social groups offer meaningful reference points in the range of variations of coping with technology for the majority of the world's population.

2.1 Academic Backgrounds in Germany

The academic concerns of the discipline *Volkeskunde*, later renamed European Ethnology, and of history of technology in Germany have long since made a connection between technology and everyday life. In 1961, focusing on the expansions of time, space and social perceptions caused by new technologies, Hermann Bausinger proposed a new paradigm of treating the technical world as the natural life world, "technology as means for accomplishing everyday life" (*Technik als die Form der Lebensbewältigung*) for the originally tradition-oriented *Volkeskunde* (Bausinger 1961).¹ The legacy of Bausinger's paradigm-changing proposal reached far beyond his own academic circle. Historians of technology perceive technology not only as limited to artefacts but also as including human behaviours around artefacts (Ropohl 1986: 126). Obviously, the dichotomy of culture and technology has been softened, even if not all historians go as far as Wolfgang König in regarding technology as ubiquitous, as accompanying human beings from the very beginning and as being culture itself (König 2003: 415). Accordingly, exploring the area of overlap, namely the cultural history of a certain technology or a certain

¹ Nearly 30 years later, in 1990, the English version of this book was published in the USA, and it was noted by a few Japanese scholars. To my knowledge, there is no published Chinese version yet.

technical product, has become attractive as well as productive for both historians and anthropologists.²

2.2 The Everyday Technology Approach

The linguistic rules of the German language allow for the combination of the two terms “Alltag” (everyday) and “Technik” (technology) into one word, “Alltagstechnik”. This approach of selecting some key technologies as effective access for understanding everyday life practices and processes of social change in certain social groups could be termed the “everyday technology approach” with which the research methods of this paper are affiliated.³ The core of this approach is to trace the historical development of a certain technology as far back as possible, to observe how people cope with it and to consider people’s experience and perception of it. According to this point of view, the emergence, communication and transmission of diachronic individual and societal experience in coping with certain technologies contribute essentially to shaping future technological arrangements; this has certainly been the case in European society in the modern era (Kaschuba 2004, especially chapter 3). We investigate the interactions between the material configurations and the subjective experiences of a certain technology as well as the sensory perception and the processing of these two aspects. Keeping in mind the leading question of “how technologies contribute to producing people and relations between people” raised by Francesca Bray (1997: 3), using the everyday technology approach, I strive to re-embed a special technology (electrical power and appliances) in its dynamic ecological world to understand how it accompanies people in their life cycle and during social transformation, how it shapes the processes of social change and, meanwhile, how its own development could be shaped, too, due to the adaptive creativity of the consumers’ use and perception. Though the dual functions of technology are well established in Western STS, I hope to be able to integrate more elements of everyday life and therefore to reach a new depth of understanding.

2.3 Electrification as a Key Technology

My choice of electrification as the key technology for this study could be traced back to the following considerations: First, the development of rural electrification in China has a history of nearly 40 years and is still incomplete today. Though this is a too short period for the *longue durée* of historians, its length is still significant for an

² The early studies of Wolfgang Schivelbusch such as *Lichtblick* (glimpse of light; Schivelbusch 1983) or *Die Kulturgeschichte der Eisenbahnreise* (the cultural history of railway travel; Schivelbusch 1977) belong to the pioneering works in this area. In recent years, there have been several research projects dedicated to the cultural implications of technology, such as *Electrification as Vision* by Beate Binder (1999), the cultural history of the telephone in Germany (Hengartner 1998), lighting culture in nineteenth century in Sweden (Gamert 1993, 1994, 1997), the dwelling culture of the *kang* (raised, heated sleeping platform) in northeastern China (Flitsch 2004), the sleep culture of Japan (Steger 2004) and the technical-cultural history of lighting in rural northern China (Wu 2007).

³ For the theoretical and intellectual background of this approach, see the article by Mareile Flitsch in this volume.

anthropologist. Secondly, unlike the establishment of electricity networks in Western society, depicted by Thomas Hughes (1983) as a seamless web interwoven with various interacting entities (e.g. banks, engineering firms, political parties, animate and inanimate objects), rural electrification in China was and is mainly a project of state investment. The end users/consumers, in this case the villagers, have hardly any means of shaping the developmental process of electricity provision but can only adapt their own needs to the available resources. The role of villagers as negotiation partners in the appropriation of new products and technologies, characteristic for urban Europeans in the twentieth century (Oldenziel et al. 2005), is still to be anticipated, even as the market for domestic electrical appliances in China is turning increasingly towards rural consumers. Thirdly, in the “social construction of technology approach”, users are conceived as a social group that plays a part in the construction of a technology (Pinch and Bijker 1984), and the consumer-focused analysis developed by Ruth Schwartz Cowan (1987) has been highly influential in feminist technology studies (Oudshoorn and Pinch 2003). Observing how villagers purchase and use electrical appliances, however, I argue that it is necessary to distinguish between purchasers and users, who are not necessarily identical. In this sense, this study of the Chinese villagers aims to offer some supplementary findings to the Western STS and social construction of technology (SCOT).

3 Background Information of the Field Site: Village Cheer

3.1 Existential Conditions

My ethnographic data comes from fieldwork in Village Cheer, located about 200 km south of Beijing, in Dingzhou county, Hebei province. It is a big village, in demographic terms, with over 1,000 households and about 5,000 residents. In economic terms, it is a typical agricultural village in the North China plain with an average annual income of 3,000 *yuan* per capita (according to the estimation of the village cadres in 2005). Villagers here, as in most parts of current China, earn their living partly from cultivating the contracted arable land, which is 1.47 *mu* (approximately 0.098 ha) for every eligible villager⁴ and partly from taking part in the local or countrywide labour market. Agriculture produces wheat, peanuts, maize, beans and cotton for subsistence and the sale of crops such as chilli pepper, vegetables (onions, garlic) and trees generates cash. The sales prices of these cash crops are absolutely dependent on the market, so income from agricultural products varies each year and is unpredictable for many villagers.⁵ In 2006, the daily wage for the men who took jobs on urban construction sites was 70 to 80 *yuan*. Taking a job in the village or nearby earned a man about 30 *yuan* a day and a woman around 20

⁴ Villagers eligible for contracted land are those who have an agricultural registration status (*nongye hukou*). In Village Cheer, the last land assignment took place in 1996. Since then, no adjustment due to demographic changes (births or deaths, married-in or married-out) has been implemented.

⁵ In 2006, for example, the price of chilli pepper was three times higher than in 2005, but sellers of onions received only one sixth of the price of the year before. The income from selling the onions failed to cover the costs of seeds and fertiliser.

yuan. It should be mentioned that 10% of the households live off trade business or offering services within the village.

3.2 The Electrical Appliance Market in the Village Cheer

Three shops sell small electrical appliances such as rice cookers, radios and wall clocks, and the shopkeepers take on simple repairs for a small charge. A market is held every 5 days. A few dealers from neighbouring villages or townships, who own relatively large electrical appliances shops, show off their new expensive products at the market, but they aim much more at advertisement than sales.

The rural electrical appliances market seems to be an outlet filled with outdated models withdrawn from urban shelves. Generally, the rural–urban dichotomy in China is dominated by unilinear evolutionary associations. “Peasants” and “countryside” are synonyms for “backwardness”.⁶ The imputation of backwardness to rural areas is especially striking concerning matters of scientific development and advanced technologies: ‘rural’ equals ‘urban’s yesterday’, or even the day before yesterday. Rural consumers are sold products chosen for them by trade people. The specialist magazines for electrical appliances are aware of the fact that the current agricultural policy in China aims to raise the income of rural residents and that accordingly, a potentially huge market for electrical appliances will emerge there. But their professional suggestions tend to explore smart marketing strategies instead of taking rural users/consumers seriously and adapting products for use in rural settings (Zhu 2004; Shen 2005; Li and Wan 2006). To a certain degree, we can argue that the supply of village electrical appliances markets is a culturally perceived microcosmic vision of the rural–urban relation instead of being based on the practical needs of the rural populations. Apart from accepting or refusing to purchase the appliances on offer (and where the appliances are necessities, as discussed below, there may be no real choice involved), consumers/users have no possibility to express their wishes or requests to the producers.⁷ The consumption junction, defined by Ruth Schwartz Cowan as “the place and the time at which the consumer makes choices between competing technologies” (Cowan 1987: 263), is still far beyond the perception of producers, trade people and the consumers/users.

3.3 Gender Roles in Rural Life

Traditional Chinese notions concerning gender roles have been studied very well. The dichotomy female/male corresponds with the distinction of inside (*nei*)/outside

⁶ On the emergence and history of the term “peasant” and its ideological associations, see the excellent article by Myron Cohen (1993).

⁷ In recent years, the Association of Consumers (*xiaofei zhe xiehui*) has been enhancing its role as protector of consumers in rural areas. The keyword of an action initiated by the Ministry of Business is “*liang hui yi zhan*”, literally: two associations and one station. The aim is to establish consumer service agencies at village level where the complaints of consumers can be taken into account. But the main problem they deal with is the quality of agricultural production materials, such as seeds, fertilisers, and pesticides. For consumer goods, only complaints about obvious problems of quality may be brought forth. Collecting suggestions for improving product design is not the task of the Association of Consumers.

(*wai*; Bray 1997). Whilst men are responsible for supplying subsistence provisions for the whole family and for representing it in the community, women have the duty to take on all the necessary household tasks like food preparation, sewing, cleaning, caring for children and the elderly, breeding small livestock etc. But in the rural reality, even during the pre-collectivisation time, women's activities stretched far beyond the courtyard. Besides working in the household, they shared the field work with their husbands, spent even longer hours in the field than the men (Bossen 2002: 100–101) and did additional handicrafts to increase the family income (Li 2005 [1933]: 164–165).

During the period of collectivisation (1957–1982), the newly egalitarian social status of male and female, proudly proclaimed in political discourse, translated into a bizarre paradox in daily life: socialist feminism imposed on rural women a double burden of duties for the revolution and for the family (Croll 1978; Guo 2003). Their daily life was scheduled extremely tightly in order to fulfil their duties; their mental and physical limits were constantly challenged.

The de-collectivisation of agriculture and the emergence of the market economy since the beginning of 1980s have had impacts on gender roles. Differently from many places in southern China, where females emigrated to work in urban settings and build the financial backbone of the family, most families in Village Cheer practised the model “women for grains, men for cash”, namely females stay home to cultivate the land whilst the men labour on the construction sites in big cities to earn cash (Wu 2008a). Though women's income, mathematically speaking, is lower than the men's, they contribute to keeping the family embedded in the community life, a further essential existential need apart from money. The supplementary function of the gender roles stretches beyond the family sphere to the community. Nonetheless, the women's role in the household remains largely unchanged, not only partly due to tradition but also partly due to practical reasons. In most families, the husband is still privileged to make the important decisions. According to a village survey undertaken in 2003, of the 332 valid questionnaires, two thirds indicated that the decision of purchasing expensive durable commodities was made by the males (56.3% of the cases were decided by the husband alone, in 11.8% of the interviewed households husband and wife made decisions together, but still mainly influenced by the husband; Xu 2006: 166).

4 A Brief History of Electrification

In 1959, the then 24-year-old Mr. H was recruited as the future machinist (*ji shou* 机手) for Village Cheer and was sent to the county city to receive a short-term training. His good educational background and his manifold talents in music and handicrafts counterbalanced the unpleasant fact that he came from the landlord class. Anyway, H was instructed to take on the important responsibility of operating and maintaining agricultural machines, in his words, ‘to talk with iron pieces’. Even for him, it is difficult to pinpoint when the use of electricity began in the village. In his memory, the first supply of electricity was created by a generator with a diesel engine. The generator was installed in the middle of a field not far from, but outside, the village. The limited provision of electricity was budgeted only for conveying

irrigation water from the wells and for grain processing. This was before the Cultural Revolution in 1966.⁸

Rural electrification in China remains an academically unexplored area. Based on the information in local gazettes and the branch chronicles of the electricity industry in Hebei province, I have reconstructed this long process with the focus on exploring the relationship between peasants and the state reflected in technical modernisation (Wu 2008b). Briefly, the process of electrification began with the massive movement of building power stations during the Great Leap Forward in 1958 and continued to constantly improve the electricity provisions through state investment and intervention. The process continues today. From the aspect of infrastructure building, I have identified and discussed three distinctive phases: 1958–1962, 1963–1997 and 1998 to the present (ibid).

But where the concerns of electricity users/consumers analysed in this paper are concerned, the three phases seem to span rather different time periods: Before 1972, electricity played hardly any role in the daily life of the villagers, so that the first phase of using electricity is between 1972 and 1982, when under the collective economy and the state policy of giving clear priority to electricity consumption for production over consumption for everyday life, villagers had the possibility to light their living rooms with a 15-W bulb. The individual villager did not pay the electricity charge to the provider directly, but instead to the collective production brigade (*dadui*). The sum of the electricity charge to be paid by villagers was also regulated by *dadui*.

The second phase for consumers is between 1983 and 2003. After dissolving the collective, the electricity provider and administrator (in the case of my field site, it was the Bureau of Electric Power on the level of the county; the name of this bureau has been changed many times), through its branches in townships and the electrical technicians it employs, charged fees to individual households. A dominant characteristic of this phase was the big gap between the potential need for and the available supply of electricity. The provision was not reliable, but the electricity charge and the additional fees greatly exceeded what the villagers had expected. The local branch of the electricity provider has been called an “electricity tiger” that brutally hurts the people.

The third phase began in 2003 after the first steps of improving the rural electricity grid had been completed successfully in Village Cheer. Clear regulations and greater transparency are the noticeable improvements in contrast to the previous situation: The safety of the equipment has been checked, individual electricity metres have been installed and a uniform price for electricity consumption has been imposed. Every month on the same day, villagers are required to settle their electricity bill in cash. On the bill, the reading of the electricity metre and the amounts of consumption are stated. On the one hand, people enjoy a lower unit price for electricity, but on the other hand, awareness of the costs for using electrical appliances is increasing.

⁸ For details about the process of electrification, see the dissertation by the author (Wu 2007).

5 Coping with Electrical Appliances

In this section, I give some ethnographic data concerning how villagers cope with different electrical appliances. The red thread of my narrative is not the chronological development but the villagers' perceptions of certain appliances. In some cases, both aspects overlap, but they are not necessarily always identical. This shows that the change of materialities remains an essential but never the only variable for appropriating a certain technology or technical product. I will come back to this point later on.

5.1 The Choice of No Choice: Electric Light and Water Pumps

Electric light was the first and, for a long time, the only application of electricity used in rural households. For some families in Village Cheer, it started at the Spring Festival of 1972, if they had enough financial and social capital to get the necessary equipment such as wires and a bulb. Before the use of electric light, lamps burning vegetable oil or kerosene were the light source in poor households. In the darkness, the flame of the lamp attracted family members to stay spatially close to each other and to form a kind of "compulsory togetherness" (Garnert 1997: 64). In daily use, lighting was always connected with the time consuming but unavoidable tasks of females, such as spinning, sewing clothes or making shoes. Therefore, it was the women who were privileged to control the use of lamp. Conventionally, in the evening, men were "banished" from the family house and they shared the time with other male colleagues in a public space or in the stable where they could attend to the livestock or make preparations for the next day. This habit of spatial gender division continued into the time of collectivisation: After the meeting where work was assigned for the next day, women went home and men stayed on longer to chat.

But the technical features of electric light changed this gender constellation. Electric light gives linear beams which reach every corner nearly equally so that the spatial centre in the evening was essentially widened. Accordingly, the housewife lost control over her conventional domestic area. The dilemma brought on by electric light could be seen both in the daily use and in the financial considerations. In daily use, a bulb is not as easily movable as an oil lamp. An old woman told me of her experience with electric light: *certainly it is brighter than an oil lamp, but under an oil lamp you could put a yarn through the needle eye easily*. An oil lamp can be moved easily according to the needs, but the same could not be done with electric light. Women were also repeatedly told that the conventional ways of maintaining oil lamp, like cleaning it with wet cloth, if used on electrical appliances could cause serious damage to the appliance or to the people cleaning them. Financial considerations affected men more than women. But because the electricity charge during the collective period was an ambiguous issue, using electric light seemed to be free from costs after the initial large investment of installation, whilst the consumption of lamp oil or kerosene was obvious.

The advantages of electric light were not to be refused, even if only minimal consumption was allowed (normally every household might install only one light bulb of no more than 15 W). Men struggled to mobilise all their social and financial capital to realise this dream of a new life. At the same time, men took over the duties

of repair and daily maintenance too. The shift of gender power relations is obvious in this case of lighting, but I do not mean to exaggerate it. As women lost their privilege of controlling lighting, they experienced mixed feelings of despondency and ease. Like the elderly informant cited above, women experienced the inconvenient side of electric light especially when doing fine work like sewing. Unlike when using an oil lamp, now women had to move themselves to the light bulb instead of moving the lamp wherever they needed it. Even though their husbands were ready to move the light for them, the concrete possibilities were restricted by material constraints such as the length of the wires. Another elderly female informant told me that the light bulb in her house hung on the wall above the door instead of in the middle of the living room where most villagers put it. This arrangement made it possible for her to move the light bulb herself from the living room into the adjacent kitchen if necessary, given that her husband was a primary school teacher and came home only at weekends. Certainly, such compromises seldom produced optimal lighting effects. On the other hand, women no longer needed to worry about procuring lamp oil. Before collectivisation, women had usually bought lamp oil with cash earned from household textile production or other handicrafts, but with collectivisation access to cash became extremely difficult. For all my female informants, the phrase “a chicken egg for lamp oil” expressed their bitter experience of material shortage (Wu 2007). In this sense, I argue that women’s loss of control over lighting equipment did not escalate the division of gender roles. On the contrary, it blended the duties of men and women in domestic areas. If we consider the security measures for electricity use and the shocking effects of electrocution, we can probably agree that it is more plausible to interpret men’s taking over the responsibility of using electrical appliances at that time as the courageous self-sacrifice of the protector of a family rather than an exhibition of masculinity through a new technology (Figs. 1 and 2).

A further compulsory choice of electrical appliances is the water pump. In rural China, there is no centralised drinking water supply. Villagers fetch the groundwater from wells. Whereas lighting was initially a female domain, fetching water from the well was conventionally a task for men. Since the 1990s, the water table has been sinking increasingly. Accordingly, villagers try to employ the most advanced technology to defer renewing the well as long as possible, so that the electric pump has become a necessity for every household with a well, because there is no alternative any more. In the case of water pumps, not only young men but also women and elderly people (even elderly women) readily use the new technology and have speedily adapted to its new challenges: to the unaccustomed speed and volume of water flow and to control through the use of an electric switch. Here, we should note the challenges involved in operating the water pump: For safety reasons, the electric switch must be installed far from the outflow, so quick and coordinated reactions in handling both switch and water are necessary. To fetch water in the conventional way was the task of one person, but at least in the beginning, a water pump needed two persons for effective coordination. Another troublesome thing was the electricity network. Before 2003, in most households, such electrical equipment as wires and fuse wire was of poor quality. As the water pump runs at 2,000 W, turning it on could easily cause such unpleasant complications as fuse cutoff or short circuits, requiring external help (Fig. 3).

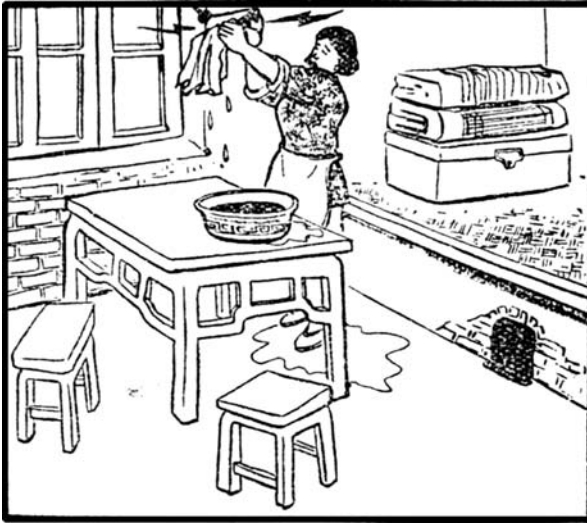


图 37

Fig. 1 One typical imagination of gender roles in coping with electricity use is reflected in the enlightenment booklets in the early phase of electrification: a woman conventionally uses water to clean wires and light bulb. The way of coping with electricity means a serious risk of life. Source: *Nongcun yongdian changshi wenda* (*Questions and answers concerning electricity use in rural*), edited by the Electricity Bureau of Harbin. Harbin: Heilongjiang renmin chubanshe, 1964. Figure 37



图 41

Fig. 2 One typical imagination of gender roles in coping with electricity use is reflected in the enlightenment booklets in the early phase of electrification: a man repairs lighting appliance with scissors. The way of coping with electricity means a serious risk of life. Source: *Nongcun yongdian changshi wenda* (*Questions and answers concerning electricity use in rural*), edited by the Electricity Bureau of Harbin. Harbin: Heilongjiang renmin chubanshe, 1964. Figure 41



Fig. 3 In the most rural areas, electric switches and wires still look like in a spontaneous state of lacking security (source: Shaqu, Shanxi province, 2008. Photograph: Hu Xiaohui)

Is such a compulsory acceptance, the choice of no choice, also a kind of rationality? In response to the anthropological studies of peasants' rationality, Guo Yuhua depicts, in a general sense, the mentality of Chinese peasants as practising "existential rationality" (Guo 2002: 109). This means that peasants make their choices amongst the few alternatives, mostly also no alternative, in order to be able to guarantee survival. To a certain degree, the fact that villagers adopted electric light by simply ignoring the dilemma it brought about (the large sum for the initial investment, the inconvenient immobility of the lighting source, the uneven improvements in lighting quality) and adopted water pumps by being willing to accept additional efforts for using them (more than one person needed to coordinate operation, the uncertainty of power surges) shows the triumph of "existential rationality". Age, gender and educational background—all these elements could be obstacles in the way of accepting new technologies, but the unavoidable needs of everyday life are strong enough to destroy any barriers blocking the transfer of useful new technologies if people have to confront the choice of no choice.

It is noteworthy to indicate that under such compulsory circumstances, the appropriation of a new technology/technical product tends to be strongly integrated in the conventional thought and behaviour patterns or in another term, the *habitus*, of

daily life. Still today, it is obvious that the villagers are thrifty in using lighting but generous in using water. Conventionally, lighting was always connected with the time consuming but unavoidable tasks of females in the evening, and oil or paraffin had to be bought with cash. Even today, not only the elderly but also the younger generations are used to setting one light bulb in the middle of a room. Though the electricity consumed for lighting is much less than for other appliances like TVs, villagers still tend to use a bulb with no more than 40 W for daily lighting. From the statistical data of electricity charges, it is difficult to figure the exact consumption percentage used for lighting. But the data of December 2003 shows that 82 households in Village Cheer (8% of all households) consumed less than 1 kW of electricity that month. For these 82 households, we can confidently estimate that they had no electrical appliance other than lighting. The thrift of consumption for lighting is impressive, after all, December has the shortest days. A further 53 households (5% of the whole) consumed less than 5 kW in the same month (Wu 2007: 148). Another phenomenon to be observed is the unnecessarily long wire of the bulbs which makes it possible to move the bulb from one place to another to compensate for the flexibility of the conventional oil lamps.

In the case of using water pumps, the cost factor is seldom seriously considered, especially with the elderly as their customised logic views the needed water as being obtained only with labour and not money. During my fieldwork, I observed more than once that villagers would pump water to irrigate vegetables of a kind that could be purchased very cheaply at the market, even though on a purely economic calculation, the cost of the electricity for the pump was greater than the cost of buying the vegetables.

5.2 Improving Conjugal Quality: TVs and Washing Machines

From 1978, the beginning of agricultural reform, to the mid-1980s, Chinese peasants experienced a prosperous time of income rise and improvement of living standards. Accordingly, more and more electrical appliances entered rural everyday life. TVs, electric fans and washing machines were the most popular items amongst rural consumers. During the 1980 business year in Dingzhou (formerly named Dingxian), through the “supply and marketing cooperative” (*gongxiao hezuo she*), the exclusive channel for selling large electrical appliances, 40 TVs were sold. Electric ceiling fans appeared on the commodity list first in 1982. As the cooperative intensified their marketing strategy in rural areas and opened three branch shops for electrical appliances in the big townships, a total of 837 TVs, 295 washing machines and 1,108 ceiling fans⁹ were sold in the 1984 business year (*Dingzhou shi zhi* 1998:380).

⁹ The high number of ceiling fans owned cannot be taken directly as an index of priority in comparison with TV and washing machines. First, an electric fan was much cheaper than the other two kinds of electric appliances; it was hardly to be taken into the category of “object of value”. Second, if a family decided to purchase an electric fan, they tended not to purchase only one, but a few of them at once, at least one each for the living room and for the kitchen. The rational behind this decision is: The product itself was cheap; the installation was troublesome. Another point is that an electric fan will be used only during the high summer, a short period actually. During the rest of the year, it plays nearly no role in the family’s daily life. In contrary, TV and washing machine could be used the whole year. Thus, this paper does not take electric fans into consideration.

For the period from 1985 to 1987, the Statistical Bureau of Dingxian county made a survey on the ownership of electrical appliances sampling 100 rural households. The results in Table 1 were presented in the local chronicle published in 1998 (ibid: 246).

Obviously, TV is the most popular commodity amongst the early electrical appliances. By 1987, more than half of the rural households owned a TV. In the 1980s and the beginning of the 1990s, a TV was the first of the “four big objects” in the bride wealth that a young woman expected her husband’s family to provide. But due to the technical conditions, the enjoyable entertainment of watching TV in the 1980s and 1990s was relatively limited. Until the coming of cable TV in 2005, the signal quality of TV programmes was very unsatisfactory. The quality of electricity provision was also not sufficient for properly operating a TV. An informant, Mrs. M, recalled the time at the beginning of the 1990s:

At that time there was only one transformer in the whole village. Anyone who lived at the edge of the village could forget about watching TV. The voltage was too low, even light-bulbs only glowed red and gave no light. On the TV screen you would keep seeing red or green stripes here and there. Later, we used two voltage regulators for watching TV. One voltage regulator was not enough, and even after the voltage was improved the TV picture was still not stable, so we bought two more regulators to improve the voltage again. But it still did not really work. Later on, I opened a sewing shop, sewing clothes for other people. And I wanted to watch TV while I was running the sewing machine. It was really not enjoyable.

This study does not propose any hypotheses to explain why TVs were most appreciated, even though the technical conditions were far from perfect. I want to highlight here how TV, together with electric light, advances sociality within the familiar circle, or more specifically, ends the gender separation within the family sphere. In the era of oil lamps, women controlled the lamp in order to do their housework and handicraft, whilst the men were “banished” from the family house. As the electric light illuminates the whole room almost equally, it has become possible for men and women to remain together in the same space without disturbing their respective tasks. From the very beginning, TV was regarded as a kind of appliance which offered entertainment and improved sociality. The first owners of a TV in the village could not enjoy the privilege of watching it alone: relatives, friends and neighbours admired the new entertainment and shared the rapture. TV also offers the possibility of arranging a shared evening life for the whole family. Watching TV makes family members, wife and husband, stay together and share the same fun. Quite a few households have more than one TV, in the living room and the bedroom,

Table 1 Ownership of electrical appliances per 100 rural households between 1985 and 1987

Items	1985	1986	1987
Electric ceiling fan	9	15	23
Washing machine	4	8	23
Refrigerator	0	0	0
Television	20	34	55
Tape recorder	5	8	9

but they are seldom switched on at the same time. Even today, TV as an entertainment device, rather than a medium for obtaining information, is still a dominant notion. I observed that villagers often neglected the cost factor of watching TV: They kept the TV on whilst having dinner or talking. In some cases, if visitors came, the host/hostess even switched on the TV with the intention of showing his/her hospitality. Watching TV is only a background which might increase the visitor's enjoyment. Neither visitor nor host/hostess will pay close attention to the contents of the TV programmes; their talk will not be disturbed by the TV programme in the background.¹⁰

Similarly to TV, the ownership rates of washing machines are also very high amongst the villagers. But in contrast to TV, which is often switched on, villagers often leave their washing machine standing in a corner without using it. The perplexing question is: If it is seldom in use, why was it purchased? In an early article published in 1985, Jean C. Robinson already noted that buying a washing machine in order to free women from onerous household tasks was economically less reasonable than to invest in seed, fertiliser and agricultural supplies, "yet despite these caveats, peasants, too, are buying washing machines...according to attitudes expressed to me by a number of people in China, (washing machines) are often considered a purchase primarily for the benefit of the women in the family." (Robinson 1985:45).

Laundering clothes, sheets and bedclothes of all family members has been a domain and task assumed by women. Even today, this steady vision of domestic work division is barely touched by the notions of women's emancipation. In northern China, women are accustomed to washing by hand in a basin instead of using the river water. Yet, in the sacrificial rituals for a deceased woman, a daughter is obliged to burn a paper cow in offering to her dead mother. The folk interpretation is: because during her life a woman has polluted so much water through washing and cleaning, she would need a cow to help her drink all the dirty water in her after life. Nowadays, the rural men still do not feel responsible for laundry, but they increasingly acknowledge their wives' contribution in doing this work. This might give an explanation why rural families often purchase washing machines following the suggestion of the husband rather than a request by the wife.

Theoretically, four kinds of washing machines are accessible to rural consumers. The single cylinder washing machine can only be used for washing; the twin tub offers both washing and spin-drying functions. Neither depends upon access to running water and drainage. Water can simply be poured into the washing tub. After the washing process, clothes can be picked out of the washing tub and placed in the drying tub manually. The draining of water can also be regulated manually with a dial. The third type is the fully automated washing machine with vertical cylinder. Once the programme has been selected, the whole washing process, including filling the tub and draining the water, is regulated automatically, so for this kind of washing

¹⁰ Interestingly, the same phenomenon that people learn to "listen with half an ear or have the television on as a background screen for conversation" has been observed in Sweden by Orvar Löfgren (1990: 1). According to Mika Pantzar, this type of phenomenon is associated with the second phase of the domestication of technology, when playthings are transformed into practical technologies (Pantzar 1997: 53).

machine, a system of running water and drainage is necessary. However, it is possible to interrupt the washing process by pressing the pause button so that the user may observe and control the washing effects and make some adaptations, such as adding extra washing powder or prolonging the washing time. The fourth type of washing machine is similar to the third one but has a horizontal cylinder. Supposedly, this type does the least harm to the clothes, but the user cannot intervene once the selected washing programme starts. In practice, only the first two types of washing machines are considered by most villagers. A few very well-off households with urban living styles own a fully automated washing machine.

Through my talks with the women in Village Cheer, I learned that in most households, the purchase of a washing machine was motivated by family members' "rites of passage": marriage or childbirth.¹¹ In order to illustrate this issue in more detail, I take the typical case of my hostess' family as an example. My hostess proudly told me that after the birth of her second child, her husband first suggested purchasing a twin tub to replace the single cylinder washing machine they were given when they had gotten married. The husband explained that his intention in purchasing the new washing machine was to spare his wife from tasks requiring her to be in contact with cold water. This is an essential health consideration during the period just after childbirth and so he was willing to purchase a washing machine with a spin-dry function at any price. But my hostess admitted that the new washing machine was really only helpful when she had large items like bedclothes or padded winter jackets to dry.

Even though my hostess does not use the washing machine often, this by no means indicates that she does not appreciate her husband's kindness. The way she does laundry is organised flexibly to match her spare time with pressing needs. She might wash only a few items in a basin if she had only little time. Considering the circumstances in the village, using a washing machine is not necessarily the optimal way to do laundry. As suggested by the Australian example, the purchase of clothes dryers may actually increase the time women spend on laundry (Bittmann et al. 2004). In my hostess' family, as in many other households, the washing machine was present but largely unused. Yet, despite the discrepancy between the intentions of the purchaser (the husband) and the actual practice of the user (the wife), the mutual support alliance between man and woman in this family was reinforced by the mere existence of this washing machine.

My statement concerning the priority of TVs and washing machines for rural domestic use is also confirmed by the result of a nationwide survey undertaken in 1999 (Zhao and Zheng 2000). At the time of data collection (February 1999), 95.2% of rural households owned a TV (including colour and black-and-white TVs), and 36% of the households already had a washing machine. In reply to the question

¹¹ In conducting the study of coping with TV, washing machine and water boiler-cooler, I interviewed altogether nine couples. Two of them were in their twenties, married for not more than 5 years. The other seven couples were in their late thirties or in the beginning of their forties. For the two young couples, purchasing a twin tub washing machine was included in the bride wealth. The middle-aged couples used the special events of family development as the occasion for purchasing a new washing machine. In only one case, the wife rejected her husband's suggestion of purchasing a twin tub washing machine with the argument that she did not need it. Her husband's sister said she was a very hard-working and thrifty person, who always kept spending on herself to a minimum.

about intentions to purchase certain appliances within the next 5 years, TV was named first in 32.8% of responses, followed by VCD/DVD player in 19.6%, washing machine in 17.5% and telephone in 14.2%. In order to explain how and why TVs and washing machines took and take such a prominent place, there is still much more detailed research to be done.

5.3 Sign Value or Use Value? The Case of the Water Boiler–Cooler

Anthropologists customarily highlight the culturally embedded surroundings of an object used or consumed and seek the ritual or symbolic meanings of a material thing (Douglas and Isherwood 1979; Appadurai 1986). Their generalised insights into human behaviour offer stimulating insights into how people select certain technical products “as sources and markers of social relations” and how such artefacts help them “shape and create social identities” (Oudshoorn and Pinch 2003: 12). Even though today’s Chinese villagers generally have practice-oriented notions about technical products, we may still observe that the real motivation for owning certain technical appliances lies more in their sign value than in their use value.

With the improvements of their financial situation in recent years, villagers tend to consume some commodities as symbols indicating membership of a social group. Kinship bonds are now increasingly being challenged by the individualism of the younger generation (Yan 2005), and in Village Cheer, I observed the emergence of several small solidarity groups of middle-aged people, based mainly on friendship between their male members. Group membership also depended on shared experiences such as having been playmates in childhood or schoolmates as teenagers, compatible characters, similar views and, last but not least, roughly equal economic status. Normally, not more than five or six households belong to such a group. Depending on the size of its social network, a household might belong to more than one such group at the same time. No formal regulations force the members to perform any duties but they offer social support to each other whenever necessary, and they spend their spare time together playing cards, *majiang* (mahjong) or just talking about their new experiences or plans. Striving to own certain commodities helps them to strengthen their group identity, especially if the product arouses positive associations with their self-image. The water boiler–cooler is one such commodity.

After I settled in with my host family in September 2006, I asked my hostess to give me a list of electrical appliances which might facilitate her housework. I wanted to purchase some appropriate ones for her in order to compensate her for the additional work caused by hosting my son and myself. To my great surprise, she told me:

He (her husband) said, we will buy a water-boiler-cooler this year.

“Do you really need it?” I asked.

We might. It is convenient for drinking-water. Xiaoqian’s family has one already.

A water boiler–cooler is an electrical appliance which operates on the principal of an air compressor to produce a glass of boiling or ice-cold water in a very short time.

Most types are designed as two parts with a total height of about 1.2 m. The lower part is usually a cupboard that can be used to store drinking cups. The main working part is above it. Inside the outer casing of metal or plastic, there are two compartments, one for boiling and one for cold water. On the top is the inflow socket (called *congming zuo*, literally “clever socket”) into which the neck of the water container is placed. From the beginning of the 1990s, more and more urban residents were reluctant to consider tap water as suitable for drinking, and so a new business of selling hygienic water (*chunjing shui*, literally “pure water”) in plastic containers began to thrive.¹² The size of the water containers varies. Consumers can now set a water container on the water boiler-cooler to get hot or cold water directly rather than pouring water into a pot and then boiling it.

Since the first water boiler-cooler produced in China came on the market in 1994, this appliance has been gaining increasing popularity amongst urban residents. According to the statistical data of one market research agency, 20 million water boiler-coolers were sold in China in 2004, 25 million in 2005 and 33 million in 2006 (Zhao and Yu 2007: 28). Water boiler-coolers are very convenient for consumers of pure water sold in containers, but concerns about the safety of using electricity and about the hygienic quality of the water have been raised in different media. First, a water boiler-cooler operates with electricity and water at the same time. Any defect could lead to a short circuit or the machine might even catch fire. Secondly, the operating principle of the water boiler-cooler is such that every time water is poured out, an equivalent volume of air is sucked into the water container. Bacteria in the air will thus enter the water container and accumulate there rapidly (Li 2004: 21).

Even though the hygienic standard of the water from such water boiler-coolers has aroused, many concerns amongst consumers and the public more generally urban residents seem to have few alternative solutions for obtaining suitable drinking water. The urban market for water boiler-coolers is dominated by a few brand name companies which claim that the quality guarantee of their products (in the sense of ensuring danger-free electrical circuits, hygienic standards of water and elimination of noxious elements caused by repeated heating) has been successfully achieved through high-tech means, such as the additional functions of killing bacteria with ozone, silver ore or positive/negative ion bombardment. Consequently, the prices of such medium- and high-ranked water boiler-coolers range between 800 and 1,600 *yuan*.

The products meant for rural consumers, however, are mostly no-name products produced by small factories with loose or no quality controls at all. Some of them are so-called “*san wu chanpin*” (lacking three kinds of label, namely no factory, no address, no brand mark). As I witnessed during the winter of 2006 at my field site, the most expensive model of water boiler-cooler, priced at 890 *yuan*, was to be found only in a large department store in the county city. In a specialist shop for

¹² According to a report published in the magazine *Shanghai Standardizations*, on the market of Shanghai, the percentage of drinking water in containers which complied with the quality standardisations assigned by the state authority rose from 45.5% in 1998 to 76% in 2006 (Jin 2006: 45–46).

domestic electrical appliances in the township, I saw more than ten different types of water boiler-coolers standing on display. Obviously selling water boiler-coolers was a lucrative business at the time. The prices on the labels varied from 300 to 500 *yuan* (although the real purchase price could be bargained down by at least 50 *yuan*). Considering that the same electrical appliance will always be priced higher in rural areas than in the big cities, it is not difficult to imagine how poor the quality of these water boiler-coolers must have been. So I was puzzled by the fact that it was far from exceptional for village families to have a water boiler-cooler in their living room, whilst many other families intended to buy one in the near future.

One day, I found an opportunity to ask the husband of my hostess why he wanted to buy a water boiler-cooler. He answered: "It's so elegant! As soon as it stands there, the whole (room) looks modern. And all you urban residents like to drink tea. It will be convenient for you to get boiling water." I could see no suitable place in the living room for the future water boiler-cooler, so I asked him: "Where will you put it?" "I haven't decided yet. If nowhere else works, I'll break up this small cupboard. It's really poor quality."

From my continued conversation with this middle-aged man, I gained some insights into his motivation for purchasing a water boiler-cooler. In his friendship circle, nearly every household already had such an appliance or was going to get one. Xiaoqiang (referred to earlier by my hostess) was the first to introduce this appliance to the group. He was a long-distance truck driver transporting coal. He first saw this appliance in the office of a client in Shandong province. He was very impressed when the client offered him a (cardboard) cup of tea as soon as he sat down. It was just what he wanted after a long tiresome drive. Instead of the conventional sequences of boiling water, finding a thermos and washing a dirty mug to prepare tea for a guest, which was usually the way it happened in a village, the efficiency of the water boiler-cooler and the disposable cardboard cups fascinated the truck driver. When he found another water boiler-cooler of the same type standing in the room still in its box, he immediately asked his client to let him have it. The client was reluctant to agree because he had promised it to another person. But the truck driver did not give up. The price was 380 *yuan*, one eighth of his monthly salary. He paid in cash and took the package with him. At home, Xiaoqiang shared the story of discovering this new electrical appliance and the euphoria it gave him with his friends. For them, using/owning a water boiler-cooler signifies that they are interested in urban ways of living, open-minded and civilised. Purchasing such a new appliance without hesitation also serves as a sign of the financial well-being of the household: Though it costs good money, it is still an affordable luxury. The bricklayer Q, in his mid-thirties, belongs to the same social group as Xiaoqiang and my host family. Although his income was not as high as that of the other members of this group and his wife was extremely thrifty, he did not hesitate long before he decided to buy one. He told me frankly: "I alone was responsible for the decision of buying the water-boiler-cooler. I got it from the shop in our township, less than 300 *yuan*. You see, in our living room under the window-sill there is some space. We still needed a piece of furniture. The size of this type of water-boiler-cooler is just right for the space, so I bought it at once. Just as a piece of furniture. But it looks more attractive than a cupboard, and you can store cups in the base. So it's practical too, isn't it?"

In most households of Village Cheer, men still enjoy the privilege of dominating family decisions on important issues such as purchasing an expensive commodity. Concerning drinking water, the fascinating point is that this appliance spans two domestic domains, one belonging to males and one to females: the water boiler-cooler is a piece of equipment in the living room (a representative space attributed to men)¹³ instead of in the kitchen, but it prepares water suitable for drinking (a duty attributed to women). In order to discover the gender notions associated with coping with the water boiler-cooler, I always raised two questions with my informants: (1) Who decided to purchase it? (2) Do you use it regularly?

During my fieldwork, I found about ten households with a water boiler-cooler in their living room. Only in one case, a young couple, did the wife acknowledge that she had decided to buy the appliance. She had married her husband two and half years ago, had a 1-year-old baby and, at the time of our conversation, had opened a cosmetics shop in a neighbouring village. She said that when she got married, the water boiler-cooler was not yet in fashion, otherwise she would have calculated it into the dowry. Now with a baby, she always needed some warm water for drinking as well as for washing. She bought the appliance because it was practical. In the other cases, however, it was always the men who had decided to purchase it. Asked about the reason for their decision, they had a ready answer: "It is practical for drinking-water!"

At least on the discursive level, whether deliberately or not, men conceal or blot out the symbolic meanings that the water boiler-cooler holds for them. Instead, they accentuate the practical functions of the appliance, from which women should draw the maximum benefit. To some degree, stressing the practical aspects of the water boiler-cooler reflects the husbands' wish to support their wives, reducing their everyday burdens through the use of new technical products. This could be understood as an example of how the increased intimacy of conjugal relationships (Yan 1997) is now also expressed beyond the private sphere in various ways.

Yet, to the second question ("Do you use it regularly?"), women gave an unconditional, absolutely clear answer: No. One female informant said: "Most likely during the Spring Festival, when lots of people are here. If the stove doesn't boil water fast enough then we'll get a few cups of water from it." Because women did not use it regularly, men had to take over the troublesome task of maintenance if they used it. Unlike urban residents, villagers do not buy water in containers; therefore, rural users have to pour water into a special container provided with the water boiler-cooler. Even though many rural users were not yet aware of the debates about the hygiene of the water used in the appliance, they changed the water container after a few days because they had a much higher sensitivity to the freshness of drinking water than urban people. Changing and cleaning the water container made the occasional use of a water boiler-cooler unpractical and even troublesome. Usually, men abandoned taking care of the water boiler-cooler after they had

¹³ Purchasing equipment for the living room is attributed to the duties of the husband. Therefore, it represents the social and financial status of the family, but to keep the living room tidy and clean is attributed to the tasks of the wife.

purchased it and just left it standing in the living room. Women were not enthused by it either, because it is not part of everyday routine in the village to provide suitable drinking water on demand at any time. Whether in winter or summer, most villagers are nowadays used to having three meals a day. In the morning and evening, the meals consist of a liquid gruel made of millet or maize flour, *fan tang* (literally meal soup). The gruel is a vital component in the structure of their nourishment, and their bodily needs for liquid are thus mostly fulfilled via these regular meals. During other periods, they seldom drink water without some special reason such as swallowing medicine. A thermos is still used in every household. Middle-income households have so-called “primitive heating radiators” (*tu nuanqi*) installed. During the cold winter days, a small boiler in the kitchen keeps the heating radiators in the living room and bedroom warm whilst it also provides energy for cooking and boiling water. In the hot summer days, people prefer to drink freshwater just pumped from underground, which they keep cool in a thermos.

Obviously then, the designed aims and functions of a water boiler-cooler find no place in the villagers’ current ways of consuming drinking water. Men are motivated to purchase it for its symbolic value in their social surroundings, even though they assert its practical aspect for the whole family. Women take the line of least resistance as long as the purchase does not devastate the household budget: They tend not to engage with this electrical appliance actively. But generally, they share the same notions as their husbands, appreciating it as a sign of a modern civilised way of life in their living room. Further evidence of their actual neglect of the practical uses of the water boiler-cooler is the fact that rural consumers take no account of how much electricity this appliance would normally use. None of my informants could give an exact figure for the potential electricity consumption if they used it regularly. Normally, if a household has to pay a monthly electricity bill of more than 30 *yuan*, or if an appliance consumes more than 100 kW, then people actively and rationally consider how to reduce their consumption.

6 Conclusion

The strength of the “everyday technology approach” and of the anthropology of technology in general lies in its aptitude for scrutinising the details of everyday life in order to discover the inherent logics of the relationship between technology and human beings. After scrutinising the long electrification process in rural China and observing the ways in which villagers cope with different electrical appliances, I now come to a summary of my findings and conclusions.

First, Chinese villagers’ experiences with electrification are contradictory and paradoxical, or in other words, they are dominated by certain dilemmas. The introduction of electricity, until quite recently a completely unfamiliar form of energy, caused only gentle reforms instead of dramatic revolutions in everyday life practices: Villagers are willing to integrate electrical appliances step by step into their conventional daily life processes. The materialities of a certain new technology or technological product are translated and embedded into the related cultural and social environments. As my ethnographic data show, all five kinds of electrical appliances (electric light, water pump, TV, washing machine and water boiler–

cooler) have been more or less used to convey values beyond their practical uses. Especially during the period dominated by the socialist plan economy, the appropriation of small-scale domestic technologies such as electric light or TV was enabled and directly shaped by state policy and the national economic situation. In response to the discussion about the positioning of East Asian STS by D. Fu (2008), maybe we could see in the results I have presented one unique characteristic of STS in some East Asian countries.

Second, this study discovered no general pattern in the conjunction of new technology and habitus. There is no doubt that continuity of behaviour leaves a stubborn imprint on how people cope with new technologies. But I tend to think that the intensity of the retained habitus is proportionally related to the available possibilities for making choices. In the case of electric light and water pumps, villagers were forced to let the new technical products march into their daily life, so their conventional notions of using lamps and water were transferred to the new products and their behaviour altered unconsciously. If the purchaser/user is more active in the decision making of whether he/she appropriates a certain technical product or not, the habitus exposed in coping with the object might be regulated by conscious adaptation or re-definition, like the case of rural women's use of washing machines or men's notions concerning the water boiler-cooler.

The third and also the core finding of this study is that in the domestic sphere any introduction of new technical appliances also shifts or reshapes gender relations, although this is true for the rural society of China as much as for any other in the world. But here, this process mainly encompasses notions of mutual support rather than campaigns for the redistribution of power. After all, in their everyday life practices, men and women together form a *Gemeinschaft*, or community, necessary for their survival. Ways of coping with the most popular technical products referred to in this paper signal an increasing conjugal solidarity through appropriating these appliances, even in the case of electric light where power conflicts might be very harsh. Due to the introduction of electric light, women lost the complete control over a domain formerly belonging to them alone. But as women lost their privilege of controlling lighting, they experienced mixed feelings of despondency and ease. Men took over the responsibility of obtaining the necessary equipment, repair and daily maintenance of electric light. But considering the security measures for electricity use and the shocking effects of electrocution, we can probably agree that it is more plausible to interpret men's taking over the responsibility of using electrical appliances at that time as a courageous self-sacrifice as protector of the family rather than an exhibition of masculinity through a new technology.

With this case study of a Chinese village, I make it clear that it is necessary to question how well conventional oppositional dichotomies like female/male, masculinity/femininity as analytical frameworks. This provisional starting point has at least the merit of corresponding to current realities of village life. Though men and women do have different statuses, values, gender notions and behavioural patterns, given the choice, they will often prefer to conclude alliances rather than promote their own position. As the title of this paper proposes, men and women might each have their main role as purchaser or user, but together they share a common interest in owning the product, even though they might have different ways of treating it.

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