

## RURAL INNOVATION CHAINS. TWO EXAMPLES FOR THE DIFFUSION OF RURAL INNOVATIONS\*

László LETENYEI

Ph. D. student, Budapest University of Economic Sciences and Public Administration,  
Budapest, Fővám tér 8. H-1093; e-mail: llet@freemail.hu

**Abstract:** A *chain of innovation* is a social network, defined by offering or adopting an economic innovation. The main hypothesis is that the diffusion of rural innovations and the changes of life-style of the peasants (generally: the growth of market economy) do not necessarily restructure or destroy local networks, but in some cases they will be reinforced. There are two different forms of economic behaviour: that of the *innovator* and of the *model imitator*. The innovator is an entrepreneur in Schumpeter's sense: an economic actor implementing innovation. Other entrepreneurs do not innovate so they copy the existing economic models.

The members of peasant societies are mostly model imitators. This economic behaviour is based on peasant social networks: prestigious people are also recognised as economic examples to be followed, so their innovations will be accepted. On the other hand, the strongly tied rural actors, who worked mostly together and represented many times their relationship with all due solemnity, are socially urged to help their smaller relations even with economic advice. If the example is to be the entrepreneur, many connected households will be also entrepreneurs – but not necessarily innovators. There will be new technologies adapted in the community; even life-style will change, but not the social networks that present major stability.

To illustrate this hypothesis there is the description of two cases of anthropological fieldwork conducted in rural areas. One is the example of an indigenous community of the Peruvian Andes and the other one is of a Hungarian village.

**Keywords:** innovation, networks, rural society

\* The author wants to thank Zoltán Szántó, Wilfredo Cori Castro, András Csité, János Farkas, Tibor Kuczsi, Tato Saenz and Endre Sik. I would like to thank BUESPA–ELTE Sociology Ph.D. program and IIUR research institute of UNSAAC University of Cusco (Peru).

## INTRODUCTION

*“The diffusion of innovations occurs among individuals in a social system, and the pattern of communication among these individuals is a social network. The network of communication determines how quickly innovations diffuse and the timing for each individual’s adoption.”*

*Thomas W. Valente 1995*

According to my approach, the essence of an *innovation chain* is the diffusion of an economic innovation. The main question of my paper is how an established social network of a settlement influences the diffusion of innovations.

My assumption is that the creation of economic innovations and the involved enrichment in the lifestyle change of peasants from rustic peoples to entrepreneurs (generally: the development of the market economy) does not necessarily destroy the traditional local networks. On the contrary, in many cases these changes will reinforce them. Behind this apparent contradiction there are two different forms of economic behaviour: hereinafter the *innovator* and the *model imitator*. I label the *innovator* the entrepreneur who, according to Schumpeter, is an economic actor executing an innovation (Schumpeter 1930). *The model imitators* are other entrepreneurs who do not innovate anything, and without rational calculation take over existing economic models.

The members of the peasant society are mostly embedded economic actors, so in their cases *model imitator behaviour* is more likely. On the one hand, prestigious people can easily be economic examples to be followed, so their innovations will be learned through close observation by the community. On the other hand, successful people are under the pressure of others to help their poorer relationships with at least economic advice, leading also to imitation of the example. If the example is starting an enterprise, many connected households will also become entrepreneurs – but they will not necessarily be innovators. New technologies will be spread in the community and the life-style may even be changed, but because of the adaptation of innovation it is again incidental to the symbolic strengthening of the community’s social networks.

To illustrate this hypothesis, I will demonstrate the result of two cases based on anthropological fieldwork. One of the examples shows the innovation process of an indigenous community of the Peruvian Andes, the other shows the example of a Hungarian village, Ökörítőfülpös.

## MODELS OF DIFFUSION OF INNOVATIONS

Among the researchers of diffusion of technological innovations we can find Hungarian experts as well. Baron Loránd Eötvös examined the topic from a scientific point of view, and in his work, written together with Béla Bucsy, he considered the problem of technological development as a separate theme (Eötvös and Bucsy 1919). Their lecture notes, *Theory of Evolution* discuss the practical application of scientific methods, but the research was interrupted by World War I and they had no followers.

In the thirties, the term innovation was given an economic definition as the key notion of the *Theory of Economic Development*. The author determined five basic types of economic innovations: setting up or discovery of new product, new manufacturing process, new market, source or new organisation (Schumpeter 1930). The notion of innovation has been used by most of the authors in almost the same way. For example, according to Valente the diffusion of innovation is nothing else but “new ideas, opinions, or spread of products in society” (Valente 1995: 2).

Until the fifties and sixties, works dealing with how innovations diffuse were mostly written according to the modernisation approach and were highly technological. They focused on how innovational processes could be modelled and how their results could be predicted. They interpreted the innovational process as a means of studying complex systems, and employed complex mathematical models to solve the problem (Bright 1964).

Research of the innovation systems during the decades of the Cold War remained a much debated theme in socialist countries, including Hungary. A number of works by János Farkas discussed the connection of results of Hungarian technology and of the social sciences, so he dealt with the question of innovations. In his book *From the Idea to the Realisation* he provides a wide survey of theoretical history, the present state of innovation research, and their communication-like approach (Farkas 1974). Ferenc Jánossy describes the spreading of new technological achievements through the example of six shipwrecked mariners (Jánossy 1975). László Bucsy was an outstanding figure in economic literature (the author is the son and spiritual heir of Béla Bucsy, colleague of Loránd Eötvös), who among other things wrote a lecture note about innovation systems (Bucsy 1976).

Since the 1960s the *diffusion of innovations* has been getting more and more attention. Research focusing on diffusion has turned away from a purely technological approach as well as from purely psychological explanations which are characteristic of business sciences, and has been increasingly applying social science methods. “Diffusion is the process, *through which an innovation, independent of time, becomes known among members of a social group*” (Beal and Bohlen 1955, cited by Rogers 1983: 5).

The first publications dealing with the diffusion of innovations were written about economic sociology, mainly on rural sociology. Everett M. Rogers’ fieldwork on New-Mexican, Brazilian, and Indian farmers in the 60s and 70s is outstanding. In 1963 the first work on the history of diffusion of innovation was already published (Katz, Levine and Hamilton 1963; Rogers and Shoemaker 1971; Rogers and Kincaid 1981). Agricultural innovations and the change in rural societies were in focus for a long time.

The most widely known research studying innovation diffusion comes from the field of health, which deals with the diffusion of a new medicine, tetracycline, among doctors (Coleman, Katz and Menzel 1966). Although during the 18 months of the research every doctor heard about the novelty, those who seemed to be “more integrated” because of their organisational membership received the information earlier than the “isolated” ones.

As a result of Granovetter’s scholarship, embeddedness, derived from Polányi’s phrase, rather than Coleman’s concept of integration, came to be one of the keywords

of network analysts (Granovetter 1973). The expression that had been used for describing archaic societies from this time became useable under the circumstances of the market economy (Szántó 1994). The distinction between strong and weak ties by Granovetter and the methodological and practical acceleration of social network analysis inspired even the literature of innovation, and in the 1980s several summaries were published on diffusion. (Granovetter 1983, Brown 1981, Mahajan and Peterson 1985, Rogers 1983). The handbooks on network analysis usually deal with questions of innovation in some chapters or paragraphs. (See for example Knoke and Kuklinski 1982 or Wasserman and Faust 1994.)

In the 1990s Thomas Valente classified the increased number of models describing the diffusion of innovations, into four big groups: *structural* and *relational diffusion networks*, *threshold models* and *critical mass models of diffusion* (Valente 1995). As follows, we will survey all of these Valente groups.

Surprisingly all models follow the S-shape; the general, empirical model of diffusion of innovation. (See Figure 1.) We get the explanation in different ways.

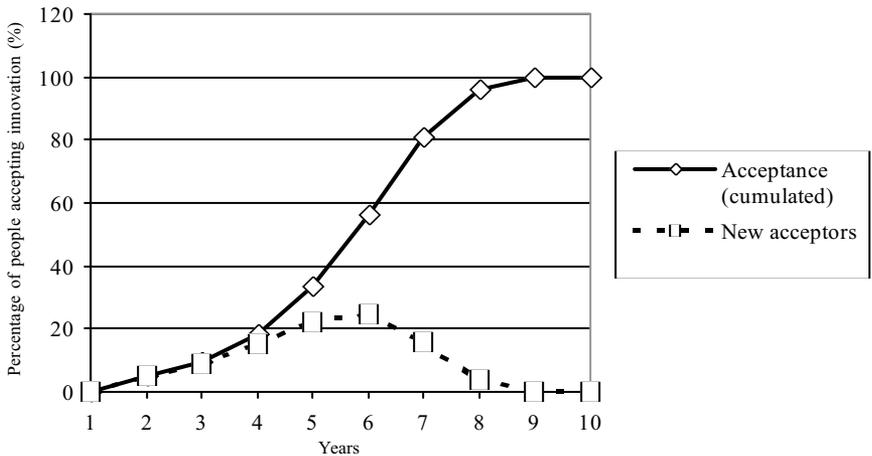


Figure 1. General empirical curve of diffusion of innovation. (Valente 1995:13)

As a starting point of *structural diffusion networks*, Valente quotes Granovetter, who considers people who are weakly embedded in society and *people with weak ties* to be in the best position to mediate between different groups in society, and moreover to take over and pass along an innovation.

The model of relational diffusion networks is based on the assumption that the private relationships of the members of a society influence the speed of the innovations' diffusions. It has four subgroups: *opinion leadership*, *group membership*, *personal network density* and *personal network exposure models*.

The *opinion leadership model* is based on the "hypothesis of the two-step diffusion", supposing that information, intended to be public, reaches other members of society with the help of opinion-forming people of the community. A formal

criterion, for example membership in an association or organisation, is usually used to classify people as opinion-shaping or not. Perhaps the opinion leadership model is the most widespread one. Among others, Coleman and his colleagues used this model for their research of the diffusion of a medicine.

The *group membership model* assumes that an innovation spreads at the same speed among members of a community. As a result of the empirically usable model we can devise an innovation diffusion index, which is characteristic of a given community.

By the term *personal network density* we mean the grade of ego networks, or relationships, of a member of the community. According to the model, people with more personal network density are more likely to get to know and to take over an innovation.

The last model is the *personal network exposure* model. It focuses on people not having accepted the innovation yet. The individual has a share in the diffusion of an innovation if one of his/her acquaintances already uses it.

Although the *threshold models and critical mass models of diffusion* belong to two quite different schools, according to Valente they derive from the same thought. The threshold of an innovation indicates a certain rate of members of the network, the rate of innovation users, who are willing to adopt the innovation (Granovetter 1978). *Critical mass models of diffusion* – similar to the last model – count at least how many members accepting innovation are necessary in a network such that the process of the diffusion of the innovation does not break off (Valente 1995).

## DIFFUSION OF INNOVATIONS AND HUNGARIAN RURAL SOCIOLOGY

In connection with the diffusion of innovations we not only have to pay attention to how the various innovations diffuse, but also the question of how a society will be influenced by the results of the innovation.

In Schumpeter's definition, being an entrepreneur means having entrepreneurial behavior. In other words, an entrepreneur is always looking for new markets, production procedures, etc. (Schumpeter 1930). In this paper I call this model the Schumpeterian entrepreneur innovator. Moving forward, according to Kirzner, an entrepreneur is interested not in understanding the present situation, but exploiting the future, potential possibilities. Therefore, his (or her) aim is not maintaining the present conditions, but their innovative transformation. (Kirzner 1978). Kuczi Tibor arrives at the same conclusion claiming: "...becoming independent is not an unnoticed slide from being employed to becoming an entrepreneur, but a radical change, a jump from the known to the unknown." The change in lifestyle goes together with a change in *habitus*, in the Bourdieuian sense. Becoming an entrepreneur, though, is not only an inner, spiritual change, but it also affects the surroundings, the relationships. "Becoming independent is also breaking with continuity, upsetting the surroundings: transforming the everyday world of friends and relatives into a competitive enterprise (Kuczi 2000: 141–142).

While Kuczi considers the rural entrepreneur to be a social being ruining his relationships and reorganising the social power-relations, this idea differs

fundamentally from the results of studies made previously in our country about social relationships. These pointed out the stabilising and human resource-saving nature of the rural social net. Endre Sik's work dealing common work circle (called "kaláka" by the peasants themselves and the ethnographical literature), which is considered to be a classic by now, points out the "permanent" nature of these activities. By this, he suggests that even though these "bee" activities may lose some of their importance from time to time, they haven't stopped since their mysterious appearance, and can be considered fit for life, even today.

Farkas Zoltán Hajdú aptly calls this system based on work exchange a "collective ritual", "during which the solidarity of the group gains public and solemn confirmation" (Hajdú 1995: 144). In accordance with the voluntary co-operative work types of Sekler land, Hajdú shows us that the different joint works and communal networks often play a kind of safety role as well, and by preventing the natural disasters they support peasant household strategies striving for safety and stability. "Help in misfortune: if somebody's cattle or pig breaks its leg or catches some kind of disease which risks the life and usability of the animal, the animal is slaughtered after being examined, and its meat is sold in the community. This voluntary safety co-operative is called "hopsa" by the Seklers." (Vitos 1848, cited by Hajdú 1995: 106)

Kuczsi stresses the fact that during the unstable economic conditions of the 1990s the institution of voluntary co-operative work strengthened all over the country, although he emphasises that the traditional peasant view, striving for safety, is only one reason for it. The other reason is the frailness of small undertakings and the bad paying moral. In this environment it seems to be a rational decision to look for socially controllable partners or to initiate relatives and acquaintances (Kuczsi 2000). The usage of old connection networks for entrepreneurial purposes can be a result of a rational decision as well, because it saves resources, chiefly money funds. This advantage is not only valid for rural but also for urban entrepreneurship (Czakó 1997). Angelusz and Tardos emphasise that it is hardly imaginable that somebody would start a business with a totally unfamiliar person. A group of people who do not know each other personally but who line in the same milieu such that people can potentially get in touch with each other is called a *latent macrogroup* (Angelusz and Tardos 1991).

Whether the tradition of collective work or rational calculations lead to the use of the local social net as entrepreneurial resources, in both cases, the result is the strengthening of interpersonal behaviour patterns, and the preservation of the stability of the system. But what is the situation when we examine innovation chains, and in particular if the relationship involves economic innovations?

According to the quoted passage from Tibor Kuczsi, becoming an entrepreneur and using new manufacturing processes would necessarily go with the conversion of a traditional social net. However, in my experience, the diffusion of innovations in villages and its following economic strengthening and upswing do not necessarily go with the transformation of the existing social net and the social structure.

People managed to change over from the peasant life to an entrepreneurial life (in this Hungarian example: *post-peasant*), such that the social net did not change, or did

so only slightly. The change of life-style came true, but the embeddedness of village people in the given network did not noticeably change. In other words, the change was managed within the existing scope. The following two studies illustrate this statement.

### **INNOVATION CHAINS IN A CHANGING INDIGENOUS COMMUNITY IN THE ANDES: SAYLLA, 1996**

In 1996 I received a scholarship to attend the university UNSAAC of Cusco (Qosqo, Peru). I often spent the weekends in a nearby small village, Saylla, at the house of acquaintances. Saylla is situated along the highway. This road, built about 15 years ago, has been, until now, the only asphalt road in that region, and besides air traffic it is the only up-to-date connection Cusco has with the outside world. Out of the 1300 inhabitants of the settlement, most of the people are *quechua-speaking* indigenous peasants, and the rest are the *mestizo*, people who belong to the elite and make their livings as shopkeepers or intellectuals. The ethnic based division of labour, as in Saylla, is the usual practice in the countries of the Andes (Letenyei 1998).

Since finishing the building of the highway, significant social changes have taken place on the settlement. At one time the road was built to by-pass the village, but more indigenous families moved next to the highway and tried to live off the traffic. Seeing their success, more and more families began a daring enterprise and built houses along the concrete roadway. In addition, people from other villages have settled down there. Today the picture of the society in the villages is very complex: the old mestizo elite lives in the old Main Street, peasants live at the edge of the village, and the rich, among whom there are foreigners and resident population as well, live next to the highway. The population of the village consists of more clans, and the leaders of the clans are mainly from entrepreneur indigenous people living next to the highway.

I tried to trace the origins of the innovation processes and what further social context the innovation chains might have contained with the help of interviews and participant observation.

There are 37 slap-bang shops (*chicharoneros*) on the settlement along the highway. With the help of my Peruvian friends, mainly Tato Saenz, we conducted 18 interviews, and I had information about all the entrepreneurs. The interviews contained only three questions: from whom and when they got the idea, who was the innovator, and the person who first started that kind of undertaking in the village.

Everybody could name the man who started the first slap-bang shop. When we interviewed him, he said that he learned in Cusco how to roast a pig. When he got married and came home he had the idea to start his own undertaking. As he wanted to build a new house, he built it next to the highway and he set up his slap-bang shop beside the house. He got the pigs with the help of his acquaintances from Cusco, and only later did he turn to pig-breeding.

It turned out as well that first he imparted his special knowledge (what kind of oven should be built, what kind of vessels are needed, where pigs can be bought) only to his acquaintances and relatives: after the fourth year still only four people took up this business. Yet, the idea spread, until today almost forty small restaurants are

working. It is interesting that even people not born in Saylla got the idea of opening a slap-bang shop through some kind of relation.

Foreigners, people not born in Saylla, use mainly their old relationships to run the business: they buy the pigs in their home village, they get credit from their relatives, they have the utensils and furniture made there. This often means advantage over the true-born Sayllaians.

The following figure illustrates the innovation chain of 37 slap-bang shops:

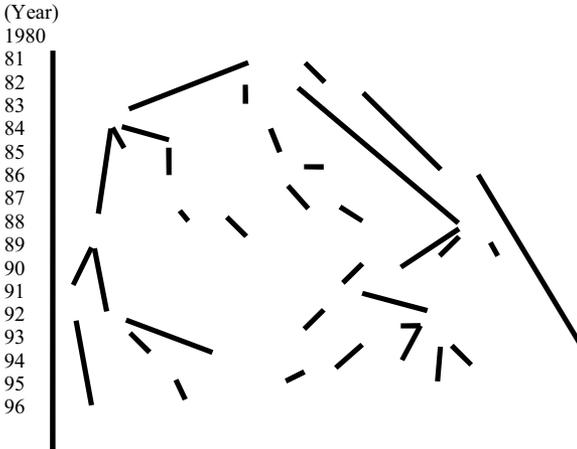


Figure 2. Taking over the special knowledge about slap-bang shops in Saylla (Peru). (Based on interviews, 1996)

This time diffusion of innovations does not follow the usual S-shape:

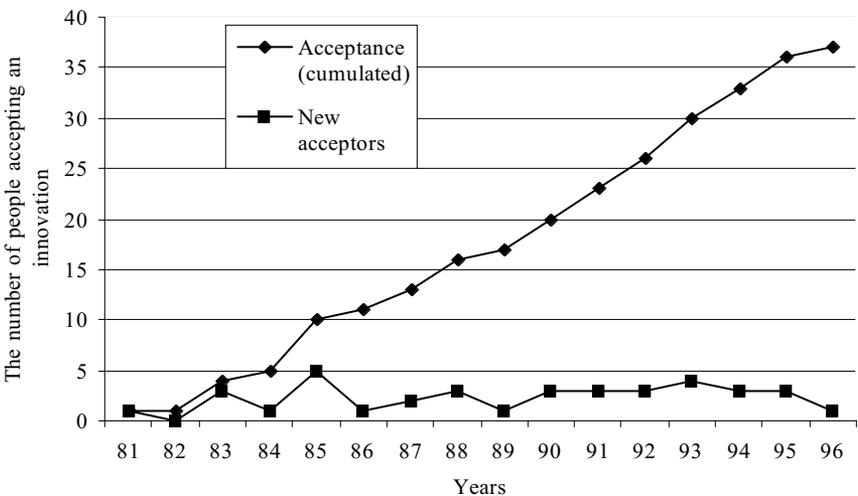


Figure 3. Opening a slap-bang shop in Saylla

My second question is about what further social perspectives can we use to interpret the innovation chains.

In Saylla the clan-like ties of affinity (the rest of the old *ayllu* organisation) are considered the most important form of social organisation. Communal work and the institution of communal feasts are organised within the networks, each time including five or six families. I took part in a feast as well, (there are more occasions like this every year), where close relatives, members of the clan (the *ayllu*) helped with their work or paid instead of working, and the other indigenous people brought natural resources, drinks and food. The mestizo and I were allowed to take part as invited guests.

The question arises whether the diffusion of innovations goes through the clan relationships, or in Granovetter's term it diffuses through strong ties. Do relatives or just acquaintances pass on the special knowledge to each other? It seems to me that there are examples for both cases, although the innovations diffuse differently through strong and weak ties.

If an innovation was accepted and used by one of the clans, then it became general very soon among the other members of that clan. Within each family relation even three or five families could begin an undertaking, and the other families got additional work there. On the other hand, employing poorer relatives instead of paid workforce limits the number of undertakings. A kind of patron-client system was thus developed where people dealing with slap-bang shops had the leading role, and relatives dealing with pig-breeding became the outworkers. A network of relatives cannot run more than three or four undertakings, because it would remain without safe hinterland.

It is hard to impart an innovation for a member of a clan to a member of another clan? The innovations diffuse step-by-step in the local society. The innovation, from the innovator, quite quickly gets through to his/her closer environment, but after that it is often blocked, and only incidentally go on from these people to other groups. Within the other group, the innovation diffuses very quickly, though at the end of the family circle it seems to come to a deadlock.

To mediate between dead-ends, most often there was a need for a "weak tie", namely an acquaintance who was not a relative (not a person from the clan), but still good enough of an acquaintance to share the innovation with the others. In Saylla we found seven contacts of this nature, but the 18 interviews on the subject are not fully reliable. These good acquaintances were friends who got familiar with each other when they were young or when they went to work in the city. They also might have known each other from school or some other places. In the new, unfamiliar environment the townsmen were happy to become friends, even if in the conventional, home environment they would not have got close to each other.

In the figure above strong ties are indicated by heavy lines, weak connections are indicated by broken lines.

As a summary I would point out that though making a concrete road had an enormous effect on Saylla, most of the local entrepreneurs did not consider it as a deterioration of relationships, transformation, or loss of culture. In the clan-like organisations, the families were in close contact with each other and behaved in an exemplary way. If the model changed, as in our case, the innovation reached all the

members following the model extremely fast and efficiently, without them knowing that becoming wealthy and producing for a market was going to lead quickly to a cultural erosion that would change their present social relationships.



Figure 4. Weak (circle of acquaintance) and strong (clan) relationships in Saylla.  
(Based on interviews, 1996)

### INNOVATIONAL CHAINS IN HUNGARIAN RURAL AREA: ÖKÖRITÓFÜLPÖS, 1992–1995

As a member of a village-ethnographers' group, I spent several months with others in the region of Szatmár, where we conducted our research on all three sides of the border, in Romania, Hungary and Sub-Carpathia (Borsos, Csité and Letenyei 1999). My task was to map the relationships within the village society, which I tried to approach using a variety of methods. The next figure shows the expressions used in describing the social network of a household, based on interviews carried out in 1993. We asked the following question: "Please, list all your relatives." The idea of graphic representation of the model comes from the article of Larissa Adler Lomnitz (1998).

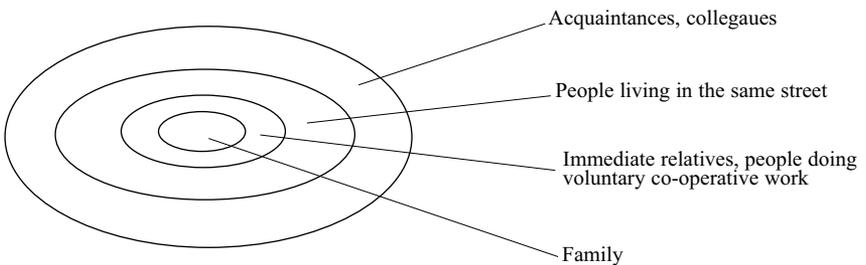


Figure 5. The structure of the social network in a family of Ökörítófülpös.  
(Based on an interview, 1993)

The figure shows that the closer forms of relationships cover fewer and fewer people, and the peasant household can be found in the deepest rings of this circle.

My interest turned to the diffusion of innovations in 1994. Similarly to North American agricultural-sociological research in the 1960s (the existence of which I knew nothing about at the time), I started to be concerned about why the idea of the cultivation of “fashionable plants” spreads among agricultural farmers. In other words, why do some people start to grow cucumbers or sunflowers one year, and undertake a long-term investment such as planting fruit-trees the other. Prior to and during the years of our field study the following new crops and organisational forms appeared in Ökörítófülpös:

1989: a new kind of pear

1991: tender cucumber, with a buyer from Mátészalka, for German export

1992: healing herbs

1994: sunflower for the order of a buyer from Debrecen

We can also consider innovation the transformation of organisations around the change of regime, or the accommodation to new legal regulations. We may regard innovative behaviour as the suspension of certain activities in the new environment, such as giving up growing tomatoes from one year to another after the nearby canning factory of Kocsord went bankrupt. Only a few villagers made up their mind to quit growing tomatoes, however, because tomato growing made good money for decades. They were used to cultivating it, and they could hardly imagine that from that year on it would be virtually impossible to sell it. Instead of this point, however, I only discuss the four new crops mentioned above.

To reveal these innovational chains I prepared a new series of interviews, then I constructed a new questionnaire that we conducted in the winter of 1994 in 64 households altogether, which is 18% of all households of Ökörítófülpös. The diffusion of innovations could be traced quite well: most of the people we asked remembered when it started, and who it was who personally introduced the innovation in the village. They could also tell when and from whose advice they adopted the innovation, or to use the local language: *when they settled to the new thing*.

It was observable in the diffusion of all four innovations that in the first year very few people adopted it. If it turned out to be successful, in the second year more, and in the third year even more people *settled to the thing*. In the second year only those people who were close to the innovator entered the innovational circle, almost exclusively. In the third year the acquaintances of the acquaintances who, understandably, were more numerous. According to a local saying, when three people know something, it is not a secret any more. Likewise, the innovation became a common treasure from one year to the next. In the fourth year or later the innovation became generally known, but by this time most of the innovators themselves didn't really care about it.

The diffusion of the innovation shows the usual S-curve.

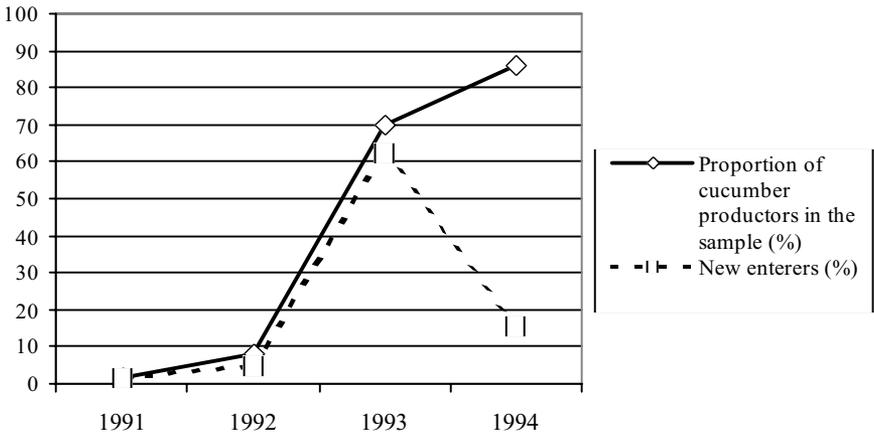


Figure 6. The proportion of tender cucumber producers in the sample (%). (based on villagers' memories of 1994)

### HUNGARIAN RURAL ENTREPRENEURS: INNOVATORS AND MODEL IMITATORS

Based on the questionnaire based interviews we carried out, I could not reconstruct the innovational chains of Ökörítófűlpös like in the Peruvian example, but I could find out who the innovators were, the people who brought the four new agricultural products to the village. There were six people altogether. In what follows, I studied whether or not their personal social net had any specific structural characteristics. For this, I used an earlier survey I conducted in 1993, when we recorded the network of those who greet each other at Easter time.

When we carried out our Easter investigation, we operationalised the notion that strong bonds were created if the male members of the household went to greet people (and sprinkle cologne or water, as is the Hungarian custom, on others) at more households than the village on average, and these ties were characterised by some kind of stronger relationships (relative, neighbour, friend). Families having characteristically strong bonds usually participated in "bee-like" collective activities. These strongly embedded families were characterised by some kind of model imitating behaviour, rather than the innovating one. This did not mean, however, that these people were locked out from the possibilities of enterprise, only that they didn't get to the innovation first, but maybe in the second or the third round. In their cases, entering the new activity was not characterised by rational calculation so typical of enterprising, but instead they followed an influential village household and started to grow a new crop that was successful in the previous year. They behaved as entrepreneurs, without the real habit of entrepreneurship. The agricultural innovations studied not only did not reorganise the social framework of production, but filled them with new meaning, and thus, strengthened them.

Male members of an innovating family didn't go around the village for the Easter sprinkling ritual, but only visited their mother or other close relatives. Women in the

same household, on the other hand, had more sprinklers, which indicated their higher prestige from a social point of view (Szántó and Tóth 1993). The relatively narrow social network of rural innovators can be explained also by the fact that they do not go out to participate in “bee-like” collective activities (“*They are over that*, as the locals explained it to us), they are more likely to employ machines or day-labourers. Many of them are not Ökörítő-born (according to the local term: “*they moved in*”), so they had numerous acquaintances and a circle of friends outside the village as well. The innovations themselves came from there, from outside the village boundaries.

Here I need to make a short digression to the argument of the eighties and nineties, about “civilisation”. Pál Juhász emphasises that the income produced in household farming plots during the Kádár-regime resulted in capital accumulation, and thus these savings helped farmers become entrepreneurs (Juhász 1990). According to Iván Szelényi, the descendants of agricultural entrepreneurs of the thirties and forties are at the head of the marketisation process of the eighties and nineties, and it is their interest to reorganise agriculture on a market base (Szelényi 1992). At the turn of the millennium it seems that, in the end, it wasn't the peasant-citizen entrepreneurs of the Kádár-regime that turned out to be the winners of the change of regime, and it was not their savings that became the basis of Hungarian capitalism. In the former Hungarian household farming plots, almost the whole Hungarian rural community was affected, and compared to this, only few of them became successful entrepreneurs. In other words, only a few of them passed the exam testing the ability to adapt to a real market economy. (See also: Csizé 1997). The real winners and the key protagonists of the change of regime, according to Erzsébet Szalai and Iván Szelényi, became the managers, who, with the help of their contacts and human capital, had more opportunities to control the transformations (Szalai 1997; Szelényi 1994b).

The marketisation argument takes on a different meaning if we also take into consideration Schumpeter's meaning while defining an entrepreneur: “...a person can only be considered an entrepreneur if he or she brings to life really new innovations and one loses this entrepreneurial status as soon as one starts simply to follow the course of the business, as many people do with their own enterprises.” (Schumpeter 1982: 125). According to Schumpeter's interpretation, the only criterion for becoming an entrepreneur is to innovate. In this sense, it is completely subordinate who had adequate savings, how much of their income they got from the market, and what kind of entrepreneurial family backgrounds they had. From the traditional economic and sociological point of view, only some entrepreneurs can be called Schumpeterian entrepreneurs, namely, innovators.

In my opinion, this approach helps us understand why so few household farming plots managed to become real entrepreneurs: only few of them had the innovative spirit, and only these few could count on using their savings and contacts favourably, while the macro-economy was transforming at a stormy speed. Most of the *peasant-citizens*, or *post-peasant* households showed model imitating behaviour in the eighties. Their household farming plots did not work according to rational calculations or balancing among business possibilities, but according to rules-of-the-

thumb and farming samples copied from the environment. Most of these enterprises went bankrupt in the nineties: the value of their network capital was reduced by the change of regime, they consumed their financial capital, and their entrepreneurial knowledge proved to be sufficient only for a family-size enterprise.

## SUMMARY

Based on my case studies, I started out with the hypothesis that social networks determine the speed and direction of diffusion of economic innovations. My approach was comparable to *relational diffusion* models in nature.

In my view, rural society is built up of smaller groups and communities: organisations of relatives and friends, proprietor networks, and partner relationships. New ideas are promising to be successful and spread quickly in a network like this, but pass on to another network with difficulty. For a successful “transition”, weak ties are needed. Finally, even the most treasured innovation will diffuse, won’t be new any more, and won’t mean extraordinary economic profit.

In this study I use the notion of an entrepreneur, both in the traditional way and according to the Schumpeterian sense, which describes the *innovative entrepreneur*. The latter, in order to distinguish between the two, I call the “innovator”. Non-innovator entrepreneurs have nothing to calculate in the end, they simply employ a well-tried innovation, in other words, they follow a model.

Schumpeter’s meaning of an entrepreneur gives a new point of view to the Hungarian civic development argument. On the basis of the village-study made in Ökörítófűlpös in Hungary, it seems that farmers who were also involved in household farming plots in the eighties, instead of rational calculation, followed models, and also after the change of the regime, again as a way of following models (and also because of a lack of other employment opportunities), became entrepreneurs. The model imitator, former peasant-citizens, could not become the big winners of the change of regime. Those who did were entrepreneurs also in Schumpeter’s sense, namely those who also behaved in an innovative way.

The individuals following models were deeply embedded socially in both the Hungarian and Peruvian villages, while the innovators, on the other hand, were more or less people living on the edge, individuals who lived above or maybe just outside of the local society.

Becoming a model imitator entrepreneur is fundamentally different from an innovative enterprise. They become entrepreneurs only if their surroundings, or rather, some of the people in their own personal social networks have become entrepreneurs already. This kind of development into entrepreneurship does not ruin or build up social relationships that already exist. Passing on an innovation and following a model in rural surroundings – similarly to work or exchanging gifts – leads to a symbolic strengthening of already present social networks.

## REFERENCES

- Adler Lomnitz, L. (1998) [1971]: Komaság: kölcsönös szívességek rendszere a chilei városi középosztályban (System of mutual commitment in the Chilean urban middle-class). *Replika* (29): 139–150.
- Angelusz, R. and Tardos, R. eds. (1991): *Társadalmak rejtett hálózata* (Hidden network of societies). Budapest: Magyar Közvéleménykutató Intézet.
- Beal, G. M. and Bohlen, J. M. (1955): *How farm people accept new ideas*. (Report 15) Ames, IA: Cooperative Extension Service.
- Borsos, E., Csité, A. and Letenyi, L. (1999): *Rendszerváltozás után. Falusi sorsforduló a Kárpát-medencében* (After systemic change. Rural changes in the Carpathian Basin). Budapest: MTA PTI and Számalk.
- Bucsy, L. (1976): *Az innovációk rendszere és a vállalati fejlődés* (The system of innovation and the entrepreneurial development). Budapest: Közgazdasági és Jogi Könyvkiadó.
- Eötvös, L., Br. and Bucsy, B. (1919): *Fejlődéstudomány* (Theory of development). Budapest: József Nádor Tudományegyetem.
- Bright, J. R. (1964): *Research Development and Technological Innovation*. Homewood, Illinois: Richard D. Irvin.
- Brown, L. (1981): *Innovation Diffusion: A New Perspective*. New York: Methuen.
- Coleman, J. S., Katz, E. and Menzel, H. (1966): *Medical Innovation: A Diffusion Study*. New York: Bobbs Merrill.
- Csité, A. (1997): Polgárosodás-elméletek és polgárosodás viták (Theories and debates on embourgeoisement). *Szociológiai Szemle*, (3): 117–137.
- Czakó, Á. (1997): Kisvállalkozások a kilencvenes évek elején (Small enterprises in the early nineties). *Szociológiai Szemle*, (3): 93–116.
- Farkas, J. (1974): *Az ötlettől a megvalósulásig* (From the idea to the realisation). Budapest: Akadémiai Kiadó.
- Granovetter, M. (1973): The strength of weak ties. *American Journal of Sociology*, 78: 1360–1380.
- Granovetter, M. (1978): Threshold models of collective behavior. *American Journal of Sociology*, 83: 1420–1443.
- Granovetter, M. (1983): Threshold models of diffusion and collective behavior. *Journal of Mathematical sociology*, 9: 165–179.
- Granovetter, M. (1994): A gazdasági intézmények társadalmi megformálása: a beágyazottság problémája (Part from the study “The old and new economic history: a history and agenda”). In György, L. and Szántó, Z. (eds.): *A gazdasági élet szociológiája*. Budapest: Aula. 61–78.
- Hajdú, F. Z. (1995): *A csiki kaláka*. Kaláka in Csík county). Csíkszereda: Pro-Print.
- Jánossy, F. (1975): *A gazdasági fejlődés trendvonaláról*. (On the trend of economic development). Budapest: Magvető Kiadó.
- Juhász, P. (1990): Agrárpia, kisüzem, nagyüzem. Agrárszociológiai tanulmányok (Agrarian market, small enterprise and big enterprise). In Kulcsár, L. and Hársfalvi, A. (eds.): *Agrárszociológiai szöveggyűjtemény 1900–1990.*, vol. 2. Gödöllő: Gödöllői Agrártudományi Egyetem, 311–345.
- Katz, E., M. Levin, L. and Hamilton, H. (1963): Traditions of research on the diffusion of innovation. *American Sociological Review*, 28: 237–253.

- Kirzner, Israel M. (1978): *Competition and Entrepreneurship*. Chicago: University Press
- Kovách, I. (1997): Posztszocializmus és polgárosodás (Post-socialism and embourgeoisement). *Szociológiai Szemle* (4): 19–46.
- Knoke, D. and Kuklinski, J. H. (1982): *Network Analysis*. Newbury Park: Sage
- Kuczai, T. (2000): *Kisvállalkozás és társadalmi környezet* (Small entrepreneurship and social environment). Budapest: Replika Kör
- Letenyei, L. (1998): Etnikum és hatalom az Andokban. (Ethnicity and power in the Andes). *Replika* (29): 83–96.
- Mahajan, V. and Peterson, R. A. (1985): *Models of Innovation Diffusion*. Newbury Park: Sage.
- Rogers, Everett and Shoemaker, F. F. (1971): *Communication of Innovations: A Cross-Cultural Approach*. New York: Free Press.
- Rogers, E. and Kincaid D. L. (1981): *Communication Networks: A New Paradigm for Research*. New York: Free Press.
- Rogers, E. (1983): *Diffusion of Innovation*. New York: The Free Press. 2. edition.
- Ryan, R. and Gross, N. (1943): The diffusion of hybrid seed corn in two Iowa communities. *Rural Sociology*, 8: 15–24.
- Schumpeter, J. A. (1930): *Theorie der wirtschaftlichen Entwicklung*. Berlin
- Schumpeter, J. A. (1982) [1928]: A vállalkozó (The entrepreneur). In Lengyel, Gy. (ed.): *Szociológiai füzetek*. Budapest: Marx Károly Közgazdaságtudományi Egyetem, 29–57.
- Sik, E. (1988): *Az "örök" kaláka*. (The "eternal" kaláka). Budapest: Gondolat.
- Szalai, E. (1997): Rendszerváltás és a hatalom konvertálása (Systemic change and the conversion of power). *Szociológiai Szemle* (2): 75–99.
- Szántó, Z. (1994): A gazdaság társadalmi beágyazottsága (The social embeddedness of economy). *Szociológiai Szemle* (3): 141–147.
- Szántó, Z. and Tóth, I. Gy. (1993): Társadalmi hálózatok elemzése (Analysis of social networks). *Gazdaság és Társadalom* (1): 31–35.
- Szelényi, I. (1992): *Harmadik út? Polgárosodás a vidéki Magyarországon* (Socialist entrepreneur). Budapest: Akadémiai.
- Szelényi, I. (1994a): A posztkommunista átalakulási válság a mezőgazdaságban és a falusi társadalomban (The post-communist transition crisis in the agriculture and in the rural society). *Szociológiai Szemle* (3): 15–43.
- Szelényi, I. (1994b): Az elit cirkulációja vagy újratemelődése Kelet- és Közép-Európában (Elite-circulation or reproduction in East-Central Europe). *Info Társadalomtudomány* (29): 31–44.
- Valente, Th. W. (1995): *Network Models of the Diffusion of Innovations*. New Jersey: Hampton Press.
- Wasserman, S. and Faust, K. (1994): *Social Network Analysis. Methods and Applications*. Cambridge: University Press.