

Hungarian Consumers and Genetic Engineering

What's behind?

While discussions on the latest scientific achievements and their social effects are frequently surrounded by fierce debates in Western states, public interest towards these questions is rather limited in Hungary. This difference is especially obvious in the case of modern biotechnology. Other problems, like the rising number of food safety breaches, a general political frustration, and the loose integration of civil organizations, are also part of the phenomenon.



Zoltán Lakner

is Associate Professor and Vice Head of the Department of Food Economy, Faculty of Food Science, Corvinus University of Budapest. He is MSc in food technology, MSc in enterprise management, MSc in innovation management, Dr. Univ. in food industrial management. He received his PhD in agricultural sciences at Moscow Agricultural University in 1990. He has coordinated the consumer surveys for the National Food Safety Programme of Hungary.

E-mail: zoltan.lakner@uni-corvinus.hu



Gyula Kasza

is writing his PhD on risk communication in food safety at Corvinus University of Budapest, Faculty of Food Science. After graduated in agricultural and food economy at University of Kaposvár, he was a researcher at the Central Food Research Institute in 2000-2003, involved in basic research for the National Food Safety Programme of Hungary. In 2003, as a Marie Curie research fellow, he studied social sciences at SATSU (Science and Technology Studies Unit), University of York in 2003. He is currently a research fellow at IAS-STG, Graz.

E-mail: kasza@sts.tugraz.at

While there have been socially robust debates on the regulation and utilization of agricultural genetic engineering (GE) and genetically modified organisms (GMO) in the Western part of the EU, there has been hardly any social resonance of this problem in Hungary. Similar to other Eastern countries, factors such as the relatively low development level of the civil sphere, the lack of self-organized communities and initiatives, and the limited experiences of citizens in social debates, considerably influence the niveau of these discussions.

A deeper investigation of this difference between "Western" and "Eastern" public reactions towards genetic engineering offers a good opportunity to see the consequences of the low level of public participation in social debates in former "socialist" (centrally planned, communist) states. Our primary research objective has been to understand the profound attitudes of Hungarian citizens regarding GE and GM food. In this paper we present some of the key findings, along with certain contextual remarks.

Exploring public opinions

In the first phase of the investigations, we conducted five focus group interviews, with 10-15 participants in each session, in three different regions of Hungary to get a general overview on the level of knowledge and the most important pro and contra standpoints concerning genetic en-

gineering. Based on our analysis of these interviews we have developed our initial hypotheses:

- Food consumers lack enough factual scientific background to understand the notion of GE and GMO completely.
- Consumers' response to the GMO problem is influenced by their social background.

- Consumers' opinion on GE can be predicted on the base of the general attitudes to food-borne risk.

To test our hypotheses we developed two questionnaires: one longer, with 600 respondents for exploring the attitudes in regards to food safety issues in general and certain questions concerning GM food and GE, and another one, which was shorter and more concentrated, focusing exclusively on the participants' level of knowledge and attitudes on GE. Both types of questionnaires were filled out during face-to-face interviews. The sample of respondents was representative of the Hungarian population by gender and region; younger generations and respondents with higher education levels were slightly overrepresented. We decided not to equilibrate, as this segment is considered to be the opinion leader regarding temporary trend changes.

Key findings

During the survey we found that people were willing to share their opinions about the issue. We noticed a robust denial of GE on a moral basis, although when GE is paired with benefits the picture doesn't seem to be so clear anymore. Better quality or lower prices have an effect on participants' acceptance. Interestingly, environmental concerns were not amongst the strongest anxieties, although the great majority of people considered it fairly important. Concerns about GE's effect on food safety (thus human health) are slightly stronger. The respondents did not give much credit for the utilization of GE in the fight against famine. The techno-

logy seems to be strongly capital driven for them. In general they had rather low confidence in modern science and its achievements, although we could record more diversification in the opinions here compared to other questions.

The opinions on general food safety issues reveal that consumers need to be informed on this topic. The subject was perceived considerably important and actual, although people in many cases tend to accept that food consumption is constantly accompanied with risk by its nature.

Hungarians are practically satisfied with the safety of their domestic food products,

and trust their regulation system, while they think of imported food as a source of risk. Judgments on modern food production technologies were surrounded with controversy, the result of investigation in this respect was a true middle of the road answer, accompanied with a great diversification in the answers.

Another part of the study revealed that the majority of respondents (3 out of 4 people) were able to recall some information on GE. The effect of the basic socio-demographic indicators (age, gender, education, region) on the level of knowledge has been also inspected. The only significant factor was the level of educa-

tion. We have also analysed the respondents' estimation about the effect of their scholastic education on the level of their knowledge in biology. The results reveal that consumers have had hardly any background derived from the Hungarian school system, which could help them to evaluate modern biotechnology. We feel that the recent Programme for International Student Assessment (PISA) study has reinforced this phenomenon as well, indicating that Hungarian school children, compared to children from other nations, have only a rather limited level of knowledge on the latest results of science and technology. This fact is a consequence of the rigidity of



the Hungarian school system and the decreasing abilities of school teachers. Teaching, as a profession, has lost its prestige and become one of the lowest paying occupations during the last decades, which led to a contra-selection in this profession. Promotion of life-long learning systems is also relatively weak in the society, although it seems to be gaining importance slowly.

According to the results, our first hypothesis is proven to be true: consumers usually do not possess the necessary factual knowledge to entirely understand the meaning of GE and GMO. While we have to accept this as a fact, it is important to emphasize that the lack of scientific literacy is not a reason for the imbalance of communication on science and technology (Durant 1999). Risk communication in Hungary is shaped by rather elitist and technocratic voices on behalf of the government. Communication is event-based (mostly when a problem occurs) and rigidly unilateral in Hungary. This may be an escalating problem over time, due to the necessity of shift from the culture of scientific and professional autonomy to scientific and professional accountability (using the terminology of Nowotny et al. 2001).

Contrary to our previous expectations, we could not determine any direct relationship between the attitudes of consumers in regard to the GMOs and their socio-economic status, therefore the second hypothesis has not been proven. On the other hand, when we tried to predict the attitudes concerning GMOs and GE, as a function of the general attitude system of consumers towards food safety issues, we were able to determine some remarkable relationships. Analyzing the results of the regression we used to determine the relations, it became obvious that those respondents, who have higher levels of trust in the food industry in general and confidence in science, will have higher levels of confidence in genetic engineering, too. The attitudes therefore are well applicable for prediction of attitudes towards food industrial application of genetic engineering; our third hypothesis has been proven.

About the context

Central and Eastern European societies are facing the simultaneous challenges of globalization and the profound, long-term consequences of irresponsible economic policies of the former socialist regimes. The

system-transition from the former centrally governed power structures to a pluralistic democracy and the re-privatization of state owned properties also had some unfavourable consequences (Kornai 2000). We can sense a feeling of economic insecurity, contrary to the wide and generous social net of the socialist regime. The increasing social differences also contribute to the mental imbalance of the population. The strongly polarized political life has fallen into discredit for many people, providing no hope for firm and consequent governmental work and socially robust positive changes. The confidence in persons and institutions of the state power is fading quickly, highlighting many problems of the Hungarian parliamentary democracy. Elder generations are highly sceptical about the independence of non-governmental organizations (NGOs) too, based on their rather negative historical experiences with the "camouflaged" civil organizations of the former state-party. Younger generations have a higher level of confidence in NGOs, and tend to see their activity in a more positive light than the elder citizens. Our data shows that estimation of the role of non-governmental organizations is firmly dependent on the social status and the age of the respondent. There is a tendency for respondents with higher qualifications to attach more importance to the activity of these organizations; however they are more sceptical concerning the independence of these organizations at the same time. There were no significant differences of attitudes by gender or region, either.

Civil organizations

Public mobilizations have a certain history in Hungary, and emerge mostly in response to environmental issues, like the Gabcikovo-Nagymaros Water Dam System (Fürst 2003) or very recently, the military locator site on Zengo Mountain. Food safety and even GM food were not powerful enough issues to raise broad public movements up to now. Food safety is seen as a question of luxury for some, especially those who struggle to cover their nutrition quantitatively: a considerable part of Hungarian consumers are still extremely sensitive about food prices. For them, safety and quality are secondary issues. The relatively scandal-free Hungarian food safety situation is surely another reason why public voices were silent in this field so far. The country had an eminent food safety

regulation both in theory and practice until the European accession, when the gates had to be set wide open for the common market's goods, including imported food from outside of the Union. Our strict inspection system at the borders therefore became obsolete. The last years brought up a high number of food safety breaches, almost all of them connected to imported goods from non-EU regions. These cases have had a strong echo in the media, which may lead to public dissatisfaction or indignation in the short term, especially if the risk communication system does not provide tangible help for people in avoiding exposure. On the other hand, we have to remark the fortunate coincidence of public thinking and the actual view of policy makers on regulation issues. As an example for this, the government has recently banned the introduction of GM corn in Hungary, while Greenpeace activists held a demonstration in front of the Chancery for the same purpose. Furthermore, in November 2004, Hungarian delegates in the EU Regulatory Committee voted against the proposals of the EU Commission to lift national bans on five GM plants.

Epilogue

Genetically modified food will be part of our life very soon, or it is already. Adequate long-term trials on possible health and ecological risks have not been conducted up to now. The good news: when every protesting country abandons its original positions under pressure from international trade organizations and investment groups, we are all going to be participants of a fairly long-term global test run.

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