

Ulrich Oltersdorf (Stuttgart)

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Differences in German Consumer Concerns over Suggested Health and Food Hazards

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Introduction

The observed increase of longevity in the population of industrialized countries can be considered as an indication of the overall success in risk prevention. These developments are not coincident with increased feelings of security; rather in contrast there is some evidence that the felt health hazards are increasing.

The food and nutrition experts state an excellent standard of food quality and rank as highest hazard faulty dealing with foods including poor food habits, the public fears most "chemicals in foods" (1-3). Despite convincing factual evidence on rather low risk of observed levels of food contamination, many mass media reports on these issues create in the public feelings of insecurity regarding eating foods.

In order to obtain up-to-date information on suggested health and food hazards, a national survey was conducted in 1992 in the reunified Germany. Since in 1992 in the former two different German countries, different political systems and societies have influenced health and food hazards factual and fictions, the actual perceived situation in these two parts should be compared especially.

Method

A representative sample (age ≥ 14 yrs; all German countries; all German-speaking and living in Germany) of N = 2500 (2000 in the former Federal Republic of Germany, called West Germany, and 500 in former German Democratic Republic, called East Germany in this paper) was gained by a random route method. The personal interviews were carried out by interviewers of a commercial marketing

company (GFM-GETAS, Hamburg) during the time of 11 Nov 1992 to 03 Dec 1992. A study-specific questionnaire was included as a part of an "Omnibus-Survey". Coding and basic statistics were done by GFM-GETAS; raw data were given to our institute for further evaluation of the data.

Results

Ranking of Health Hazards

The results indicate important regional differences in the ranking of hazards (table 1). Within the population of West Germany there are more perceived threats (3.6 health risks) compared with answers in East Germany (2.8). Amongst West Germans the major perceived health hazard is radioactivity (64%), followed by air and traffic. Food is placed as the 5th concern. For East Germans traffic is ranking top (46%). Radioactivity has rank 4; food is only a concern for 10% (rank 10) (table 1). In general, the risks are rated lower by East Germans, except traffic and smoking (this seems rather realistic).

In West Germany perceived health hazards have decreased since 1990 (table 2). Major risks are rather stable, but it is interesting to note, that regarding water many people gained confidence. Hazards which are increasing are job-related stress and pharmaceuticals.

The differences between women and men in ranking health hazards were rather small; women are a bit more concerned (3.5 health hazards) than men (3.3 hazards), in general as well as regarding every single item. They fear more the traffic (48% vs. 37%), but job-related stress is for them of less concern (23% vs. 32%).

The fears of the population are rather evenly distributed. Age has remarkable

influence only on the following hazards "radioactivity", "cigarettes", "climate" and "job-related stress"; (as in general) the young are more concerned than the older (3.6 hazards vs. 3.2 hazards). Only "noise" is of slightly higher concern for the older than for the younger.

The number of perceived risks is higher in people with higher income (3.6 hazards) compared with those of low income (3.1 hazards). Civil servants indicate higher concerns (3.7 health hazards), lowest concerns are stated by workers (3.3 health hazards). A high difference can be observed regarding food hazard: it is of concern for 35% of civil servants, but only 28% in workers.

People in urban areas give general higher ratings than those living in rural areas (3.8 vs 3.1 health hazards). Composition of the household has almost no influence, but it is curious that even in West Germany there are major regional differences. The areas with the highest concerns are the German Countries of Hesse and Rhineland-Palatinate (4.2 health hazards in general, and all single hazards; e.g. food hazard 40% - average 28%) and Bavaria (e.g. food hazard 44%).

Ranking of Food Hazards

The most concerns about suggested food hazards in West Germany are related to contaminations (e.g. "pesticides" 52%); but perhaps due to mass media reports on salmonellosis incidences, microbiological concerns are ranking high (e.g. "spoilt food" - 47%) (table 3). East Germans rank microbiological issues as most important (46%) followed by "chemicals in food" (pesticides - 33%).

Again East Germans have altogether less concerns (3.1 vs 3.8 in West Germany) and their ranking of food risks seems closer to those of the experts. Women show slightly more concerns than men

Table 1: Responses of German Consumers (over 14 years, N = 2000 in West Germany, N = 500 in East Germany; Nov./Dec. 1992) on the following question:
"Questions of health are frequently discussed in the media and on television. What do you feel is a special danger to your health? (present list)"

Health Hazard	West Germany (%)	East Germany (%)
Radioactivity	64	32
Air	50	43
Traffic	42	46
Cigarettes	38	40
Food/beverages	33	10
Climate	31	24
Pharmaceutics	29	20
Job-related stress	28	26
Noise	24	19
Water	22	13

Table 2: Comparison in responses of West German Consumers in 1990 (GFM-GETAS-Panel, 1990) and 1992 (over 14 years, N = 2000) on the following question:
"Question of health are frequently discussed in the media and on television. What do you feel is a special danger to your health? (present list)"

Health Hazard	1992 (%)	1990 (%)
Radioactivity	64	69
Air	50	68
Traffic	42	49
Cigarettes	38	43
Food/beverages	33	37
Climate	31	29
Pharmaceutics	29	14
Job-related stress	28	15
Noise	24	29
Water	22	40

Table 3: Responses of German Consumers (over 14 years, N = 2000 in West Germany, N = 500 in East Germany; Nov./Dec. 1992) on the following question:
"There are also many news pointing at certain risks related to food quality and nutrition. What do you feel is quite a risk for the people in our country? (present list)"

Food Hazard	West Germany (%)	East Germany (%)
Residues of pesticides and insecticides in food	52	33
Spoilt food	47	46
Mycotoxins	45	44
Residues of veterinary drugs and of hormones	45	22
Irradiated food	38	24
Food additives	29	31
Cholesterol	23	24
Genetically changed food	18	7
Eating too much/unbalanced ("wrong food habits")	18	19
Alcohol	16	25
Unprocessed, raw food	16	13
Natural toxins	15	11
Biotechnically changed food	11	6

in general (3.7 vs 3.5 hazards), remarkably higher is their concern regarding "spoilt foods" (50% vs 43% in men). In general the influence of age on perception of food health hazards is negligible. But the younger state higher concerns regarding "food additives", "pesticide/insecticides" and "genetically/biotechnically changed foods"; whereas the older population segment indicates relatively higher concerns on "spoilt foods", "mycotoxins" and "cholesterol". The household composition has no remarkable influence on the perceived food health risks.

The number of perceived food health risk is slightly higher in higher income groups (3.8 items vs 3.5 in lower income groups); remarkable are the relatively high concerns related to "chemicals in foods", but also to "spoilt foods". Civil servants have in general the highest concerns (4.1 hazards), workers the lowest (3.4 hazards). Remarkable is the rating of "irradiated foods" here have civil servants relatively low concerns (30%).

People living in big cities show the highest concerns in general (4.0 food hazards), and low is the rating in rural areas (3.3 hazards). The remarkable differences between these groups are all related to industrial processed foods, e.g. "pesticides/insecticides" (61% vs 36%), "veterinary drugs/hormones" (47% vs 26%) and "genetically changed foods" (21% vs 10%). The only risks perceived relatively higher in rural areas are "natural toxins" and "raw foods". The regional differences in ranking food hazards in West Germany are curious as in ranking health hazards; but whereas here Hesse and Rhineland-Palatinate are not general higher, Bavaria has again a remarkable high ranking in general (4.5 food hazards as compared with 3.6 in average).

Conclusions

The concerns of Germans regarding health and food hazards are rather high. The highest concerns should be given (according to experts) to aspects of food hygiene and food habits (2, 3). Fortunately the hazards seen by "spoilt foods" and "mycotoxins" are rather high; but overall the risk by "chemicals in foods" are still higher rated. "Wrong food habits" are underrated grossly. These findings confirm results from similar surveys in other comparable countries, e.g. in USA (4, 5). It is interesting to note that East Germans show relatively better

ratings. People who can be regarded as better informed (higher income, urban, younger) perceive even greater food hazards and go in a direction which is unrelated with the (expert's) reality. These findings indicate the difficult tasks for nutrition programs in acceptance of their messages.

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