



Professional Report No. 5 - 2003

Christian Poppe and Unni Kjærnes

Trust in Food in Europe

A Comparative Analysis

SIFO

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NATIONAL INSTITUTE FOR CONSUMER RESEARCH
Postbox 4682, 0405 Oslo

PREFACE

This report is a publication from *Consumer Trust in Food. A European Study of the Social and Institutional Conditions for the Production of Trust*. The TRUSTINFOOD project (2002-2004) is supported by the European Commission, Quality of Life and management of Living Resources Programme (QoL), Key Action 1 Food, Nutrition and Health (contract no. QLK1-CT-2001-00291). Unni Kjærnes at The National Institute for Consumer Research (SIFO) is responsible for coordinating the project.

On the basis of individual and institutional data, the study seeks to identify and analyse factors that determine trust in the food supply and in information sources. These factors include the roles of public authorities, consumer organisations, market actors, consumers, NGOs, etc. The study have conducted representative surveys in six countries, Denmark, Germany, Great Britain, Italy, Norway, and Portugal. Institutional studies have been carried out in the same countries and at the EU level. By eventually bringing all these data together, we expect to achieve a systematic analysis of the institutional bases of consumer trust and distrust in food provision under varying conditions in contemporary Europe, including a critical analysis of alternative strategies for handling trust and distrust in the food system. More information and new publications are available on the project website: www.trustinfood.org.

This is the first publication on the survey data. Many have contributed to this report in one way or the other. Our colleagues at SIFO have given their support throughout the work. In particular, we wish to thank three colleagues for sharing their invaluable competence in critical phases, Randi Lavik in the early stages, Lisbet Berg and Per Arne Tufte and in later phases of the work. The various country teams in the TRUSTINFOOD project have contributed with long and intense discussions of the questionnaire, the data, and the analyses during a series of project meetings. During the final round, two colleagues in the project have been particularly important. Anne Murcott, Special Professor at University of Nottingham, has given extensive comments to most chapters in the report. Professor Alan Warde at the ESCR for Research on Centre for Innovation and Competition (CRIC), the University of Manchester/ UMIST, has reviewed the comprehensive analyses in chapter 6. It must be emphasised, however, that the authors take full responsibility for the contents of this report.

Oslo, 15 October, 2003

THE NATIONAL INSTITUTE FOR CONSUMER RESEARCH

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SUMMARY

In the wake of the turbulence around food related topics in Europe over the past couple of decades, consumer trust has become a key issue. A number of previous surveys have shown considerable variation in the levels of trust in different European countries and regions of Europe; whether the topic is trust in political and social institutions in general, trust in food, or trust associated with particular food related issues like genetically modified food crops or BSE. The TRUSTINFOOD research programme takes these variations and fluctuations as a point of departure, aiming at a better understanding of the dynamics behind, and the implications of, such processes. To achieve these ends we have carried out representative surveys as well as institutional studies in six European countries: Denmark, Germany, Italy, Norway, Portugal, and the GB.

This is the first report on the survey data, presenting various measures of trust in food and how they are interrelated in the six countries. Our aims in this report are, *firstly*, to investigate the robustness and consistency of differences in trust assessments between countries, as opposed to individual explanations to variation and change in trust; and *secondly*, to explore associations between various measures of trust, particularly the role of basic and long-term interpersonal trust as opposed to (or in addition to) direct effects of institutional conditions upon variations in trust.

The theoretical and conceptual framing is described in *chapter 1*. Considering the empirical focus in this report, three perspectives stand out as particularly promising. Cultural references seem important to the construction of trust perceptions: culturally embedded values, norms and codes of communication are all examples of contextual elements that are likely to influence the way trust emerges in food-related practises. Moreover, in as much as key cultural features vary between national settings and also across social divisions within these settings, we may expect that cultural variations — at least in part — could account for the emergence of different trust regimes. Secondly, there is social practise, which refers to individual-level routinised activities and strategic behaviour as they are embedded in cultural and institutional influences. Food acquisition requires that a wide range of social relations are drawn upon, such as those inhabited in networks, common knowledge and accessible skills in one's social surroundings. In as much as key features of such practises vary across national settings and social divisions within them, we may also expect to observe differences in trust levels along these demarcation lines. Thirdly, specific characteristics of the food institutions and their connotations to other institutional arrangements are likely to have vital impacts on the consumers' feeling of safety. In particular, any complex system's capability with respect to

delivering foods as promised in terms of safety, quality, nutrition, etc., may be expected to influence the degree to which consumers trust what is found in the marketplace. Once again, in as much as these capabilities vary over time within a given geographical area or across national settings or social groups, trust levels are likely to vary accordingly.

Chapter 2 presents the approach and methodology applied. Identical, representative surveys were carried out in parallel in all six countries in November 2002, using the CATI procedure (Computer-Assisted Telephone Interviews). The sample size was around 1000 in Denmark, Norway, and Portugal, 2000 in Italy and Germany, and 1500 in Great Britain. The larger samples in the bigger countries are meant to allow for analyses of variations between regions. The total sample consists of 8870 respondents. The questionnaire includes the following major items: (1) Measures of trust and concerns/ worries; (2) Practices and strategies for consumers in the roles as shoppers, eaters and citizens, with a particular focus on practices related to eating and purchasing habits including mobilisation; (3) Views on the distribution of responsibilities between consumers and various institutional actors with regards to key food issues, viz. safety, quality, nutrition, value for money, and ethics; and (4) Socio-demographic variables. As indicated above, the focus of this report is primarily based on the first category of questions.

In *chapter 3*, we look at consumer trust in twelve food items. British consumers are on average most confident among the six countries considered; they have the highest score on every single item — vegetables as well as meat produce. As opposed to this, the Germans and the Italians are the least trustful consumers. On eight out of twelve indicators, German consumers have the lowest average scores. On the four others — fresh fruits and vegetables, organic beef, burgers from outlets and restaurant meals — the Italians have the lowest scores. The national rank-orders of foods that are considered ‘*very safe*’ to eat vary from country to country. The general tendency is that green produce is ranked highest, and that the first meat item comes third or fourth. The exception from this pattern is found in GB, where the first meat product is ranked as number six (chicken) and beef as low as number nine. Thus, in spite of high levels of trust among British consumers, there is scepticism towards meat. The Portuguese stand out in a unique position, as they are having high confidence in vegetables, but not in meat.

Within each national context, traditional demographical variables like gender, education, age, and household composition, place of residence and occupation have rather modest impact on trust assessments. The only variable that has statistically significant effect in all countries is gender; on average women are less trustful in foods than men — *ceteris paribus*. We also find quite modest effects of shopping responsibilities and eating habits.

Some consumers are uncertain about trust in foods, and opt for the ‘*don’t know*’ alternative. The proportions doing that are largest in Portugal with regards to trust in green produce, and in Portugal and GB concerning meat. Thus, once again we have a result that indicates continuous scepticism of meat in Britain.

Chapter 3 also includes a question on confidence in food that is bought and taken home to eat. This variable produces a somewhat different picture. Although GB is still among the high-trust countries along with Norway and perhaps Denmark, British consumers are no longer as distinguished as they were with respect to trust in foods in general. The countries in which high confidence in one's own food is least widespread, is Italy and Portugal. Consumers in the two German regions take a middle position.

When the two aspects of trust — in foods in general and in what is bought and taken home to eat — are brought together, Portugal and Italy stand out as low-trust areas. The Germans are now outside the brackets of this category, due to the fact that they have reasonable confidence in their own food. On average, they seem to compensate general scepticism with adequate purchasing strategies that secure safe foods in their homes.

Chapter 4 focuses on how the respondents evaluate the development over the past 20 years with regard to food safety, quality and taste, nutrition, animal welfare, and food prices. Concentrating on the proportion regarding changes as predominantly negative, we have characterised this as a 'pessimism' dimension. The results show that the reasonability of prices is considered to have deteriorated over the years by 51% of our respondents. The proportions are highest in the Euro area — i.e. Portugal (84%), Italy (68%) and the German regions (63% – 75%). Pessimism over prices is lowest in Norway (23%). Quality and taste are considered to have deteriorated over the years by an overall percentage of 40. Again the proportions are highest in Portugal (67%) and lowest in Norway (26%). Also the percentage of Italian consumers favouring the viewpoint is high (60%). Farming methods are considered to have become worse over the years by an overall percentage of 32. This time around, the proportions are highest in Italy (48%) and lowest in GB (19%). They are also high in Portugal (37%). Nutrition is considered to have become worse over the years by an overall percentage of 28. The proportions are highest in Italy (46%) and lowest in GB (13%). The percentages are also high in Portugal (40%). Safety is associated with least worries; the overall percentage considering it to have become worse over the years is 26. The proportions are again highest in Italy (39%) and lowest in GB (12%). They are also high in Portugal (33%).

The national rank-orders of the five food issues most commonly associated with pessimism typically include '*prices*', '*taste & quality*' and '*farming methods*' among the top three topics. In four out of six countries, '*prices*' are ranked as number one. Danish and Norwegian consumers rank '*taste and quality*' and '*safety*' as the number one issue, respectively. Adding the five issues together to form a pessimism index shows that the German regions are in the centre of the pessimism distribution. The countries, in which consumers find the highest number of issues having deteriorated, are Italy and Portugal. Pessimism is least widespread in GB.

The individual-level analyses on the relationship between pessimism and social divisions generally yield modest associations. However, gender is having consistent effects in all

countries but GB and East Germany, women being slightly more pessimistic than men. Also, shopping and eating behaviour are significantly impacting the distribution of pessimism in many of the countries. People who frequently buy food or eat meat or vegetables are typically less pessimistic than others. High degrees of pessimism typically reduce the number of trusted food items. Consumers who find any of the issues *'the same'* as before tend to score above average on the *'trust in food items'* index.

Chapter 5 is dedicated to trust in different actors. First, a series of questions focused on various actors' priorities. The findings indicate that retailers are generally trusted to have safety as a prime concern. This is especially true for Denmark. The scepticism is greatest in Norway. As for trust in farmers to put animal welfare before production efficiency, most countries display a substantial degree of uncertainty. The exception is Italy, where trust in farmers is beyond dispute. Concerning trust that food authorities will focus on safety issues rather than prices the results generally reflect the traditional Nordic trust in authorities and the southern liability towards no trust in administrative bodies. British consumers end up somewhere in the middle. The media and food manufacturers are the two least trusted institutional actors. Such scepticism is more widespread in GB, Italy and Portugal than in the Nordic countries and the two German regions.

Second, we asked how respondents in various countries evaluate information from different institutional actors in a food scandal with salmonella in chicken. Consumers' rank-order of truth-telling actors forms groups of two. First come *'consumer organisations'* and *'food experts'*. Next on the list are *'food authorities'* and *'media'*. Ranked as third come *'farmers'* and *'supermarket chains'*. The least supported couple of actors with respect to truth-telling are *'politicians'* and *'the processing industry'*. The rank-order is more or less identical in all six countries. Based on Norwegian data only, the rank-order seems relatively stable over time. The index of truth-telling actors indicates that Norwegian and Danish consumers define the highest number of actors as truth-tellers. The German and Italians trust rather few actors to tell the truth in case of a food crisis. British and Portuguese consumers fall in-between.

Traditional social divisions seem to have little impact on the number of perceived truth-telling actors. Still, experience as measured by age seems to matter to some degree, as the number of trusted actors tends to be lower in older cohorts. Meat eating habits work in the opposite direction: the higher the frequency of meat on the menu, the higher the number of perceived truth-telling actors.

In *chapter 6*, we draw upon several measures of trust to specify a unifying explanatory model of the trust in food phenomenon. The nature of this venture has necessarily been highly explorative. We tentatively assert the degree to which indicators of the cultural, institutional and social action dimensions contribute to explain variations in trust assessments. Again, the model is implemented for each country, enabling us to identify differences in the impacts from the three dimensions across national settings. We have

proposed an analytical model in three steps, starting out in the cultural dimension and ending up with indicators of institutional performance, introducing, first, the ‘trust in other people’ variable, second the ‘confidence in own food’ variable, and, finally, the ‘trust in institutional actors’ and ‘pessimism’ variables. Throughout the analyses, our dependent variable has been the ‘*trust in foods*’ index.

Our analytical procedure opens up for identifying possible direct as well as indirect effects. As for direct impacts, our hypotheses generally found empirical support also in the most advanced of the three models, which means that the direct effects are statistically significant controlled for one another. The multivariate analysis thus support the notion of interrelations between the various measures of trust: a) Trusting persons are likely to have higher levels of trust in foods. b) People who are confident that their own food is safe to eat are likely to be more trusting with regards to foods in general. c) People who are pessimistic about the long-term trend in institutional performance are likely to consider fewer food items as ‘very safe’ to eat. d) Finally, people who hold many institutional actors as truth tellers are likely to consider more food items as safe to eat. However, there are variations across the six national contexts. Whereas, in the final model, all hypotheses find support in Norway, GB and Italy, the association between general trust in other people and trust in food is not significant in Denmark and Germany. In addition, for Portuguese respondents there are no direct association between confidence in own food and trust in foods in general, while in Denmark the effect of truth-telling is weak.

In general, our analyses suggest that the presence of indirect effects is modest to weak. Up to $\frac{1}{4}$ of the effect of interpersonal trust is found to be mediated by confidence in one’s own food. The result makes sense in as much as confidence in own food is partly embedded in the cultural domains of life, and partly reflecting strategic behaviour in institutionally conditioned situations. The links between the cultural references and institutional performance, as indicated by the variables included here, are rather weak.

Thus, the general conclusion from the analyses is that both culture and institutional performances have an impact on ‘*trust in food*’ controlled for one another but that these influences largely take place as direct impacts. There are, however, important variations across national settings. Rather than looking for variations in the effects of individual variables, we may inspect the results for each country to tentatively establish national profiles and traceable differences between them. These profiles are highlighted below.

Chapter 7 aims at drawing more generalised conclusions. Three main findings stand out:

- ❖ There are substantial differences across national settings on most trust dimensions, systematically establishing a pattern in which Portugal and Italy appears as the low-trust countries, and where GB along with the Scandinavian countries stand out as high-trust areas. The German regions are typically found in the middle or lower parts of the trust distributions.

- ❖ The impact of social stratification and demography within the seven geographical contexts are rather modest. Gender differences are, however, well worth noticing, women being typically less trusting than men with respect to food.
- ❖ The various indicators of trust presented in these analyses are modestly correlated. From this we infer that they are all measures of the same phenomenon, but refer to different dimensions of it.

Beyond this, our multivariate analyses tentatively suggest the presence of distinctly different trust profiles. These are best described through pair-wise comparisons. Starting out with Portugal and Italy, they are the typical low-trust countries in our sample — settings where consumers on average score low on practically every trust indicator we used. As such, they fit well into the picture emerging from other studies on trust focussing on non-food related aspects of the phenomenon. Still, they are different in that interpersonal trust is important in Portugal but not in Italy, whereas it is the other way around with respect to confidence in food they buy for their own households.

The two Scandinavian countries in our sample are perhaps the pair of settings with most features in common, culturally as well as historically and socially. In particular, these are societies traditionally associated with high levels of stability and trust in other people and political institutions. Still, the results are quite different for the two countries. As for the Norwegian setting, cultural impacts as well as food-procuring strategies and institutional performances are important to assessments about trust in food. Not so in Denmark. Here, only mechanisms associated with confidence in the food bought for one's own household and assertions about the long-term developments within the food sector seem to impact the observed trust levels. Again, it is hard to come up with a good and well documented explanation. Still, the results strongly draws our attention to mechanisms associated with food-procuring strategies as conditioned by the Danish food institution, which is framed as more distinct from the rest of the society than is the case in Norway.

The two German regions and GB are all characterised by large and competitive market situations including those for producing and distributing foods. They also have in common the fact that they have been ridden by several severe food crises, among them BSE. Still, throughout our analyses we have seen that they occupy different parts of the trust continuum: whereas GB is marked by high proportions of trusting consumers, Germany is a low-trust area, only surpassed by Italy and Portugal. We have on several occasions suggested that this is partly due to differences in steps taken to correct critical events and restore consumer trust — in other words: a rehabilitation of institutional performances. Going beyond the gap in trust levels, the strong impact of institutional performance for trust assessments among German and British consumers alike, suggests a reflexive nature of trust-generating processes in the two settings.

CHAPTER 1

A SOCIAL UNDERSTANDING OF TRUST IN FOOD

1.1 INTRODUCTION

In the wake of the turbulence around food related topics in Europe over the past couple of decades, consumer trust has become a key issue. A number of previous surveys have shown considerable variation in the levels of trust in different European countries and regions of Europe; whether the topic is trust in political and social institutions in general,¹ trust in food,² or trust associated with particular food related issues like genetically modified food crops or BSE.³ This variation seems to be quite consistent across various issues and degrees of specificity. The TRUSTINFOOD research programme takes these variations and fluctuations as a point of departure, aiming at a better understanding of the dynamics behind, and the implications of, such variations. To achieve these ends we have carried out representative surveys as well as institutional studies in six European countries: Denmark, Germany, Italy, Norway, Portugal, and the GB. This is the first report on the survey data, presenting various measures of trust in food and how they are interrelated in the six countries.

Explanations on variations in trust seem to take basically three directions. Firstly, a focus on '*the impact of information*' has dominated studies of trust in food through concepts like '*risk perception*' and '*risk communication*'. Most of these studies have sought explanations at the individual, cognitive level, but there are also contributions that focus on information flows and trust within an aggregate cross-country setting.⁴ A central assumption in these studies is that information enhances trust, and that distrust may be explained by a lack of or wrongly perceived information. Still, several writers point out

¹ Cf. Mackie (2003), Mishler & Rose (2001), Inglehart (1997b), Kaase (1999).

² Cf. Renn & Rohrman (2000), Berg (2000a, 2000b).

³ Cf. Bredahl (2001), Almås (1994), Pellizzoni (2001).

⁴ Cf. Fisman & Khanna (1999).

that even though there are links between information and trust, they may not be causal; instead, the observed interrelationship could be brought about or conditioned by several other factors. The direction of influences may also be the opposite, since less trusting systems often triggers a need for careful monitoring and increased information flows.⁵

Secondly, '*cultural explanations*' include a variety of approaches. They do, however, share a common emphasis on interpersonal trust as a precondition for systemic, aggregate level trust. The argument is that confidence develops only very slowly, starting out in primary socialisation with the development of basic, trusting personal relations, and continued into secondary socialisation processes where young people and adults engage in social networks and organisations. These ideas are typically taken in two directions: while some writers emphasise trust as intertwined with the (unequal) distribution of social resources, thus varying in kind or degree according to social status and demography, others direct their main focus onto trust as intrinsically embedded in local or national cultural superstructures.⁶

Thirdly, '*institutional explanations*' seem to oppose a direct causal relationship between the development of interpersonal trust and social capital, on the one hand, and institutional or system trust on the other. Instead, it is argued that variations in national levels of trust in institutions are associated with the performance of those institutions, either as an aggregate output or as individual experiences. Most contributions within this tradition seem to refer to rational choice and game theory, thus emphasising the role of rational calculation of self interest.⁷ However, it is sometimes underlined that such evaluations of performance cannot be seen only as a rational consideration of self interest, but as part of a comprehensive, dynamic process embedded in a cultural and historical setting, thus opening for a combination of the two approaches.⁸ Recent empirical studies suggest that while cultural explanations may be important under stable conditions marked by general consensus about values and solutions, explanations related to the performance of specific institutions are needed for an understanding of trust under conditions of turbulence and social change.⁹ Rather than competing perspectives, we should therefore open up for the possibility that the cultural and institutional approaches offer partial or complementary explanations. As we shall argue throughout the report, this may indeed be the case for trust in food.

⁵ Cf. Fisman & Khanna (1999), Frewer (1999), Slovic (1999).

⁶ Cf. Gambetta (1988), Putnam (1993) Seligman (1997), Inglehart (1997).

⁷ Cf. Mishler & Rose (2001), Rothstein (2000).

⁸ Cf. Rothstein (2000).

⁹ Cf. Kaase (1999)

Our focus is not on general conditions of trust, but rather on the constraints offered by how food is dealt with socially and institutionally. Still, the above approaches do offer important theoretical distinctions in the understanding of trust formation in relation to food. Whereas information approaches focus on individual explanations and cultural perspectives on trust as a characteristic of superstructures and therefore only likely to change very slowly, institutional theories seem intuitively more relevant for our purposes since it may account for systematic differences between countries as well as short-term fluctuations in trust levels that have been observed in recent years. But rather than seeking to test hypothesised causal relationships, we want to explore alternative ways of understanding variations in trust. Also, rather than looking for generalised conditions for trust we will concentrate on particular preconditions within the field of food. Thus, we are mainly interested in general conditions in as much as they affect food issues.

Concerning the dynamics of trust in relations between consumers and food institutions, we point to the need of considering the complexity of modern food related institutions on the one hand, and the impersonal and routinised character of many people's everyday dealing with these institutions on the other. Obviously, such an ambition implies to consider cultural as well as institutional explanations, focusing on aggregate effects, as reflected in variations between countries, and individual variations according to socio-demographic background factors. The third of the approaches mentioned at the beginning, however, with its focus on individual perceptions of risk and information, requires other types of data and will not be considered in the analyses.

1.2 TRUST IN FOOD FROM A CONSUMER POINT OF VIEW

Departing from both comparative studies of political trust and psychological studies focussing on trust associated with individual risk perception, our approach is social and relational. From a general theoretical point of view, the consumption of food reflects a distinctive type of social practice, and a corresponding specific entry point for studies on the trust phenomenon.¹⁰ Food-related practices put in evidence the habitual character of trust. Also, it represents a particularly strong link to issues of identity formation and community maintenance, since food — materialistically as well as symbolically — becomes part of the consumer's body on a daily basis.¹¹ Processes of consumer identification and re-identification seem crucial, and perhaps much more so than for non-food items of consumption, because eating — the act of consuming food — defines an arena

¹⁰ Cf. Sassatelli & Salvatore (2002), Kjærnes (1999).

¹¹ Cf. Sassatelli & Scott (2001).

of social interaction that is traditionally characterised by congeniality and caring, but also structurally associated with fundamental importance and deeply rooted anxiety.¹²

When we talk about trust in food, the underlying understanding is that food is not merely a material and biological “thing”, nor is it a category of items with only symbolic, congenial and safety connotations. Above all, the food eaten is the outcome of what has been done with it at all stages of production and distribution until it ends up on somebody’s plate. To understand trust associated with food and food consumption, it is important to consider the social and relational aspects inhabited in food. In particular, we need to focus on food acquisition, as the situation where direct interaction with food institutions takes place. In most cases we act in the role as customers. But while this points to the economic character of the exchange, we still bring with us expectations and practices that refer to a whole range of issues, such as safety, quality, taste, value for money, nutritional contents, and ethical aspects of food production and distribution.

While several authors have seen trust as inherently embedded in the gradual establishment of personal relations and networks,¹³ there has been a growing understanding for the role of trust and distrust even in impersonal, often quite anonymous, relations. In societies marked by increasing differentiation and divisions of labour, where social exchange takes place over long physical and social distances, we have to delegate the responsibility for meeting our needs to others — often to a chain of strangers who, in most cases, are represented by organisations of various kinds.¹⁴ Such strangers — labelled ‘agents’ by Shapiro — represent a high degree of role specialisation and segmentation of tasks into discrete operations. We have to depend on a large number of agents for the production, processing and distribution of food. Equally important, we are dependent on them for the provision of knowledge and information; most people simply cannot collect, process and interpret all relevant data themselves, but have to rely on the representations and assessments of experts.¹⁵ The role of agents is, put baldly, to provide access to goods and services including information by bridging social as well as physical distance.

This clearly seems relevant for the field of food, where we, as consumers of food in contemporary Western Europe, increasingly depend on extremely complex and dynamic systems of food provision, made up by long chains of impersonal, often unknown and highly institutionalised actors. While some of them cannot be identified at all, others are only made known through the identity of a brand — which in turn may include a con-

¹² Cf. Kjærnes (1999). Fischler (1988)

¹³ Cf. Granovetter (1985), Blau (1968).

¹⁴ Cf. Luhman (1979: 52), Shapiro (1987).

¹⁵ Cf. Shapiro (1987: 626).

glomerate of organisations and units.¹⁶ It follows that the system is based on a variety of types of knowledge that cannot be fully overviewed by a lay public.

Increasing complexity and uncertainty, accompanied by changing or growing impacts of trust and distrust, are frequently pointed out as important features of modern societies.¹⁷ Of course, reviewing all this literature will certainly bring us well beyond the scope of this report. We shall therefore delimit ourselves to highlighting two important positions that seem relevant for an understanding of contemporary consumer trust and distrust in food. Both associate the two phenomena with characteristic features of modernity, but while one emphasises individualisation and reflexivity, the other position focuses on the need of complexity reduction and the role of trust in such efforts. First, there is Giddens, who argues that, given the dynamics of modern societies based on openness in social relations and increasing individualisation, actors have no choice but to make a choice:

*“Characteristic of our lives today is what one might call ‘manufactured uncertainty’. Many aspects of our lives have suddenly become open, organised in terms of ‘scenario thinking’, the as-if construction of possible future outcomes. This is as true of our individual lives as of that of humankind as a whole.”*¹⁸

In this state of (forced) choice under inherently uncertain conditions, there is a growing need for trust; you have no chance of knowing, you have to “leap into uncertainty”. This state of trust is characteristically different from former trust relations like familiarity and faith, in that a reflexive choice is being made between trust and distrust. Reflexive considerations over trust and distrust may represent a freedom for the individual. But the uncertainty that goes along with it may also cause anxiety — especially if not confidence in some basic form has been established.¹⁹ These processes are reflected even at a societal level. The challenge of modern societies is, according to Giddens, to maintain legitimacy by responding with institutional processes securing open and ‘active trust’.²⁰

The growing dependence on anonymous, institutional actors to meet our daily needs is precisely the point of departure for the second theoretical position we want to highlight. Rather than emphasising reflexivity, Luhmann has — in much more general terms than Shapiro — pointed to trust in systems as an important mechanism in modern societies

¹⁶ Cf. Busch (2000), Almås (1999), Kjærnes (2003).

¹⁷ Cf. Misztal, (1995), Seligman, (1997).

¹⁸ Cf. Giddens (1994:184). Similar views on uncertainty under modernity, individualisation and globalisation are also argued by other writers, e.g. Sulkunen (1997) and Beck (2000).

¹⁹ Cf. Giddens (1991).

²⁰ Cf. Giddens (1994), Almås (1999).

whereby complexity and feelings of uncertainty may be reduced.²¹ According to Luhmann, system trust is essentially a modern phenomenon — basically a way to deal with the complexity of modern societies. Complexity is first of all reduced through the development of ‘*symbol complexes*’. These conceptions constitute a buffer in terms of preserving trust even though there are indications suggesting the opposite. Moreover, as compared to alternative mechanisms like power, where complexity and uncertainty is reduced by delimiting choice and freedom, and organisation, where the same is obtained through an increase in predictability, system trust is generally the superior way to get a manageable grip on everyday life.

Confronted with this focus on the complexity and reliance on anonymous institutions in modern societies, Giddens’ notions of individuality and reflexivity seem somewhat insufficient, perhaps even misleading, for an understanding of ongoing processes of trust and distrust.²² In particular, in his scheme there is no opening for generalised or routinised trust and distrust. As opposed to understanding consumption as unit acts of choice, the development of relations of trust and distrust in the realm of food must be understood within the frames of repeated action and experience, rather than as autonomous instances of exchange.²³ This applies even to an understanding of reflexivity that refers to conscious acts of decision-making.

However, both approaches to trust in modern societies do point to the importance of a ‘*basic trust*’ developed in the early stages of our lives. It is only with such an underlying feeling of safety that other, more impersonal relations of trust can be established. Bringing together what has been said about the two approaches, they seem to bring in elements of cultural as well as institutional explanations of trust. The notion of ‘*basic trust*’ may be affiliated with elements of cultural explanations on social trust as expressed by for example Putnam.²⁴ However, Giddens’ focus on reflexivity and Luhmann’s emphasis on complexity reduction point to a need of additional institutional explanations as well, even though in two very diverging ways; for whereas ideas about individualisation and reflexivity bear some of the same features as notions about rational calculation of self interest, Luhmann’s scheme seems very different from that.

²¹ Cf. Luhman (1979).

²² Cf. Kjærnes & Dulsrud, (1998).

²³ Cf. Gronow & Warde (2001), Swidler (1986).

²⁴ Cf. Putnam (1993).

1.3 RELATIONS OF TRUST AND COUNTRY DIFFERENCES

A major question emerging from the literature on trust is whether and in what ways different national — or regional — settings are characterised by different levels and types of trust relations. Parallel analyses based on institutional data will focus on how this may vary across distinctive systems of food provision and distribution. The report at hand, however, will delimit its focus to a discussion on various measures of consumer trust, including the importance of institutional actors for individuals' trust in food.

An important distinction is the particularity vs. generalisation of trust.²⁵ As for the former, trust may refer to direct, face-to-face relations and social networks associated with food provisioning and identification through personal knowledge and experiences. Trust embedded in particular social relations may make typicality and locality important references. However, the frame may also be even more limited, referring primarily to family relations and personal acquaintances. At this level, the degree of uncertainty is presumably low, and the trust that goes along with it is often characterised as *'familiarity'*.²⁶ Such trust is not necessarily an expression of congeniality or a higher concern for the common good. It may also refer to the form of social control exerted within these types of relations, where mutual dependence and permanence are the typical features. Still, this form of particularised relationships may not only be associated with traditional forms of production and distribution, characterised by low degrees of differentiation in terms of division of labour and responsibility.

There is a major difference between trust as *'familiarity'* and trust directed towards impersonal institutions and systems. As has been indicated above, the recognition of impersonal trust relations introduces completely new questions and mechanisms. With trust in impersonal institutions we trust somebody that we don't know, somebody that may be different from us, and whose values and expectations may be more open. Above all, we have to rely on the joint performances of a great number of such strangers, as they join forces in organised activities to produce, distribute and sell produce to the consumer.

At this point, a distinction should be made between trust that differentiates between identifiable and identified institutions or actors on the one hand, and the much generalised trust directed towards more or less diffuse "systems" on the other. In the first case, there are relatively specific reasons for one's confidence, linked to former experience and to "guarantees" of all kinds — like, in the case of food, brands and labels, quality assurance and traceability systems. Still, all actors, including the consumers, are generally aware that the anonymous character of exchange with such institutions represents an opportu-

²⁵ Cf. Uslaner (2000).

²⁶ Cf. eg. Luhmann (1979, 1988).

nity for actors to taking shortcuts in order to secure self interests, thereby bringing negative consequences upon the other parties involved — again including the consumer. In such a situation, there is usually a need for “guardians” or “watch dogs” — i.e. some third party whose presence may relieve some of this uncertainty. This function is often attended to by government bodies, but includes even audit companies, watchdog organisations, etc.

Markets and market institutions are therefore not the only arenas of importance to the constitution of trust in food. The marketing of food has long traditions for involving the state as a third party in regulating and enforcing minimum standards and market accountability. The classical conflict between liberal ideals of market freedom and state regulation for the common good has been and is very distinct in the case of food, resulting in several, quite diverging solutions in terms of the division of responsibility, institutional setup, and the outcome in terms of consumer protection. The potentials for political conflict and consumer reactions to public policies are therefore apparent for everyone to see. Thus, beyond a wide range of public institutions at various levels, additional civil society groups and institutions may also be of relevance, such as the media and watchdog organisations, on the one hand, and experts and scientific institutions on the other. While modern systems of food provision rely heavily on advanced knowledge, so do also public policies and the public discourse.

Yet, as is sometimes pointed out, these guardians also add to the complexity.²⁷ This constitutes a running dilemma. As Shapiro rhetorically asks: “*Who shall guard the guardians?*”²⁸ From a consumer point of view, in as much as we personally experience or learn from other sources that trust is being misused distrust is likely to develop, in turn making us seek alternatives. A dynamic between the states of trust and distrust must therefore be expected.²⁹

Most people do have to deal, directly or indirectly, with these institutions in their role as consumers of food. However, building on our notions of food consumption as dominated by everyday routines, and Luhmann’s ideas of the need for complexity reduction in modern societies, we would expect to find tendencies of generalised trust in “systems”, which is far less specific in terms of the basis for trust. To illustrate, cooperation — like when shopping for food — is based on a tacit idea of shared norms and expectations (rather than performance), even when the parties involved include people or institutions that we don’t know or have no former experience with. We act in the world, dealing with people and institutions that we don’t know and who may not even be identifiable, with-

²⁷ Cf. Shapiro (1987), Power (1997).

²⁸ Cf. Shapiro (1987:645).

²⁹ Cf. Giddens’ and Beck’s notions of reflexivity: Beck (1994), Giddens (1994).

out thinking that they may harm us in any way. Uslaner suggests that in this situation, even problematic experiences or information are typically perceived as mishaps and exceptions, rather than as indications that there is reason for distrust.³⁰ Distrust is therefore no immediate alternative. There may be a need for watchdogs and feedback systems — or, in Luhmann’s terminology: institutionalisation of distrust.³¹ But in their presence, even more generalisation is allowed, probably leading to less emphasis on documentation and guarantees, but more on principles.

Yet, following up on Luhmann, we also find ‘*system distrust*’ in which institutionalised actors are routinely distrusted.³² He argues that system trust is more flexible and leaves more freedom to the acting individual than do system distrust, even though also the latter may be a means to the same end. Drawing on accounts from southern Italy made by Putnam and Gambetta, this will in turn typically lead to much more particularised relations of trust, based on personal networks including kinship relations.³³ Such accounts indicate that system distrust, once established, is not easily eradicated, even though it is very uncomfortable at an individual level and a large impediment to productivity and development at the society level. In modern societies, it may also be seen as a response to negative experiences with impersonal institutions and generalised distrust in such systems — thereby also reflecting the limited freedom in Luhmann’s description of ‘*system distrust*’. In as much as that is the case, characteristics of the ‘familiarity’ relations should be further investigated. Unfortunately, this task must largely be based on other types of data than those at disposal for the study at hand.

So why don’t we all stay in the very nice and comfortable world of system trust, leaving us with maximum freedom and few worries? It may seem that in contemporary societies it is becoming increasingly problematic to keep this very high level of generalisation. Adverse instances occur too often. Nor are shared norms and values so easily established. To illustrate, if we look at consumption specifically, we deal with markets that are often highly competitive. The promotion of trust and loyalty in own products will often imply campaigns that aim at downgrading of the competitor’s products, thus promoting more particularised and reflexive forms of trust.

Seligman has identified system trust — or confidence — as the general level of interpersonal trust, thus linking the phenomenon to the discussion about the role of “a culture of

³⁰ Cf. Uslaner (1999, 2000). He only makes a distinction between particular or general trust in other people, i.e. interpersonal relations. But we suggest that his reasoning can easily be transferred even to an institutional level – as we have done in the description above.

³¹ Cf. Luhmann (1979: 92).

³² Cf. Luhmann (1979: 71).

³³ Cf. Putnam (1993), Gambetta (1988).

trust” that was to be referred to in the first paragraph of this chapter.³⁴ This is also in accordance with Uslaner’s understanding of generalised trust. Parallel to this, the institutional trust that was described above may be associated with theories that emphasise institutional performance. These are tempting combinations. Still, such merges involve some dilemmas, as for instance the role of systems and institutional solutions for system trust, or the problems of dealing with uncertainty and lack of knowledge in the case of institutional trust. Moreover, the conceptualisation of trust relations has been developed from a consumer — i.e. an individual point of view — while the theories about differences between countries have been developed at an aggregate level, as distinctive features of societies. These dilemmas cannot be solved directly, but will be dealt with gradually in the analyses of empirical data. While this report will mainly focus on an aggregate, country level of analysis, the discussion about trust relations made above should be kept in mind, helping to seek for dynamics and distinctive features of the various measures of trust that are to be discussed.

1.4 REPORT OUTLINE

Although we do hope to contribute to the general understanding of trust, the report at hand is basically an empirical study based on the recent TRUSTINFOOD survey data. As a consequence, we are primarily interested in the above theoretical approaches in as much as they may enhance our understanding of trust within the field of food. As we see it, three perspectives emerge from the literature as particularly promising: viz. culture, social practice and institutional performance.

As for the first, cultural features seem important to the construction of trust perceptions: culturally embedded values, norms and codes of communication are all examples of contextual elements that are likely to influence the way trust emerges in food-related practices. Moreover, in as much as key cultural features vary between national settings and also across social divisions within these settings, we may expect that cultural variations — at least in part — could account for the emergence of different trust regimes.

Secondly, there is social practice, which refers to individual-level routinised activities and strategic behaviour as they are embedded in cultural and institutional influences. At this level, social capital seems crucial as it both conditions and enhances food related activities. In particular, food acquisition requires that a wide range of social relations are drawn upon, such as those immanent in networks, common knowledge and accessible skills in one’s social surroundings. Moreover, over time food-procuring practices turn the individual into a skilled actor who tacitly or explicitly acquires opinions about his

³⁴ Cf. Seligman (1997).

doings — including assertions about whether or not the foods potentially available to him or her are to be trusted. It follows that in as much as key features of such practices vary across national settings and social divisions within them, we may also expect to observe differences in trust levels along these demarcation lines.

Thirdly, specific characteristics of the food institution and their connotations to other institutional arrangements are likely to have vital impacts on the consumers' feeling of safety. In particular, any complex system's capability with respect to delivering safe foods may be expected to influence the degree to which consumers trust what is found in the marketplace. Once again, in as much as these capabilities vary over time within a given geographical area or across national settings or social groups, trust levels are as a consequence likely to vary accordingly.

The three perspectives all point to a fourth important dimension in trust construction; viz. system trust. However, it is not at all clear how to measure the phenomenon empirically and unambiguously. For this reason, there are no clear-cut indicators of system trust in the data set, even though the existence of system trust as something distinct from trust in particular institutions or actors was an underlying assumption when the questionnaire was constructed. Therefore, we shall have to approach the phenomenon indirectly, looking for evidence as we proceed with the empirical analyses. In as much as we are able to come across possible traces, system trust will appear as an interpretative anchorage point throughout the report.

In the chapters to follow we will offer initial descriptions on how trust in food varies across the six countries included in the project, and between social groups within them. We shall also go beyond mere descriptions by subjecting our initial findings to multivariate analyses. Our aims are twofold:

(i) To investigate the robustness and consistency of differences between countries, as opposed to individual explanations to variation and change in trust;

(ii) To explore associations between various measures of trust, in particular the role of basic and long-term interpersonal trust as opposed to (or in addition to) direct effects of institutional conditions upon variations in trust.

To begin with, aim (i) will first be dealt with by exploring macro-level variations between national settings, looking at the degree to which such differences can account for variations in trust assessments. An important element here is to explore correlations between various indicators of trust in food. Next, we will proceed by investigating the impact of micro-level differences within each country, and assess the explanatory power of such models. Included in these analyses are demographic variables as well as indicators on social status and a limited array of consumer practices.

As for aim (ii), we draw upon several measures of trust and a selection of parallel analyses developed under (i) to specify a stepwise and unifying — yet not exhaustive — explanatory model of the trust in food phenomenon. To do that, the various indicators of trust from all three analytical perspectives are pulled together and defined in relation to one another. In the final analysis, we tentatively assert the degree to which indicators of the cultural, institutional and social action dimensions contribute to explain variations in trust assessments. Again, the model is implemented for each country, enabling us to identify differences in the impacts from the three dimensions across national settings.

Whereas (i) will be dealt with in chapters 3 through 5, focussing on the various indicators successively, aim (ii) is addressed in chapter 6. Concluding remarks are presented in chapter 7. But before we get to that we need to discuss our methods and present the survey upon which the forthcoming analyses are based.

CHAPTER 2

METHODS

2.1 INTRODUCTION

The TRUSTINFOOD research programme calls for quantitative as well as qualitative data. Thus, at an early stage of the planning the distributive aspects of trust were separated from multi-level contextualisations and in-depth analyses — the latter to be secured by a parallel, qualitative approach.³⁵ In order to get valid quantitative data that meets the theoretical ambitions outlined in the previous chapter, representativity and standardisation rather than open designs are important. Moreover, since we are giving priority to comparing countries rather than conducting extended analyses of social variation within a particular national context, open-ended questions and long interviews are not an optimal data collection strategies. Instead we have chosen CATI — i.e. Computer-Assisted Telephone Interviews — as it provides standardised, monitored interview conditions and sufficiently representative samples. We have also settled with sample sizes from each country that on the one hand allows for satisfactory precision in conventional statistical methods applied in the social sciences, but on the other are not large enough to provide sufficient basis for sophisticated analyses of marginal subgroups. This typically means about 1.000 observations from each national setting. But as we shall see, sample sizes still vary because some of the theoretical assertions about trust call for large enough samples in the big countries to facilitate regional sub-samples.

This chapter is devoted to methodological issues. We start out by describing the data collection process, including the steps taken to ensure comparable data from six countries: Denmark, Norway, GB, Germany, Italy and Portugal. Next, we go on to discuss the resulting national samples. We then turn to presenting the questionnaire and the ideas behind. Finally, we discuss the variables and analytical strategies chosen for the study.

³⁵ In particular, the data collected for this part of the project is largely directed towards institutional mapping of each of the participating countries.

2.2 THE DATA COLLECTION PROCESS

In September 2002 several Norwegian poll institutes were invited to submit a tender for a quantitative survey, involving taking on responsibility for coordinating and carrying out data collection in all of the six countries. TNS Gallup Norway and their international partners were chosen for the job. The data were collected during November and December 2002. The target for these surveys was the population between 18 – 80 years of age in these six countries. The method chosen for the data collection was ad-hoc CATI — i.e. Computer-Assisted Telephone Interviews — which is based on databases of telephone numbers. It is also attractive because of its efficiency in terms of quickly establishing a data file for analysis. No corrective samples drawn from cell phone number databases were added as part of the sampling procedure.³⁶

Several important steps were taken to ensure comparable data from the six countries. Starting out with the questionnaire, a draft was made at SIFO based on experiences from several previous studies carried out in Norway and several other Nordic and European countries.³⁷ On several subsequent occasions, the draft was thoroughly discussed in project group meetings, involving expert partners from all six countries. This ensured competent consideration of the particular issues included in the draft and facilitated detection of adjustments needed to increase accuracy given the varied institutional conditions in each of the six countries. Out of this process came a questionnaire, which was translated into the six languages by the poll institutes responsible for the data collection in their respective countries. These translations were then again examined and cross-examined by the project partners in order to minimise the risk for language-based pitfalls with regards to how the respondents would relate to the questions.

But not only translations are critical. Also, the very composition of a questionnaire matters. Therefore, a major emphasis was put on making it as concrete and specific as possible in order to obtain a common context of meaning for respondents in all national settings and to avoid sources of misunderstandings and diverting interpretations of the questions. Among other things, this involves a careful consideration of the succession of

³⁶ Over the last few years, we have seen growing proportions of especially young people relying exclusively on cell phones for telecommunications. Therefore, since 2003 new standard CATI procedures involve drawing a certain percentage of respondents from cell phone number databases. In this way, a larger proportion of young persons are recruited to the sample prior to adjusting for possible biases by the help of weights. In the TRUSTINFOOD surveys, no such corrective sampling was done in any of the countries; sample biases are adjusted solely by the help of weights. Appreciating that the world is moving forward in the sense that the new procedures ensure slightly better quality of a given sample prior to weighting, we still believe that the end result hardly differ radically — at least not with respect to our analytical purposes.

³⁷ Among them are Berg (2000a, 2000b), Kjærnes (2001), Tufte & Ali (1998).

questions — a topic we shall return to discuss in some detail in a section below. Also, to further enhance valid data on the key topics of our study, words such as ‘*trust*’, ‘*confidence*’ and possible synonyms of these terms were banned from the questionnaire.

To make sure that the questionnaire would work in practice, pilot surveys were carried out in October 2002. Based on these experiences, a common instruction for all interviewers in all countries was developed and translated. Prior to the actual interviewing, these guidelines were presented to the interviewers by the person responsible for the data collection in each of the involved poll institutes. The instructions gave a general presentation of the study — its aims and ambitions — and included a definition of the target population, an overview of the questionnaire and its filters, and guidelines related to specific questions whenever that was found necessary. We return to this in the last section of the chapter.

In spite of all these steps, we are fully aware of the fact that the questionnaire is presented to people of different cultures and institutional settings. On the one hand, this is precisely the intent of the TRUSTINFOOD study, and the questionnaire was carefully constructed to meet that challenge. On the other, we can of course not preclude the possibility that some questions are interpreted differently across national and cultural settings. We do believe that the thoroughness of our work, and the concreteness and specificity of the questionnaire reduce this problem to a minimum. Still, comparative data like this must be treated with great caution.³⁸

A final consideration to be mentioned is that at the end of the day, the quality of survey data in part depends on the length of the interview. Although we had a lot of questions that we would have liked to ask, efforts were made delimit the interviewing time to approximately 15 – 20 minutes, which is the generally agreed maximum for telephone interviews. As it turned out, the final version of the questionnaire accomplished this goal as well.

2.3 THE RESULTING SAMPLE AND SUB-SAMPLES

The total sample consists of 8870 respondents from six countries including representative sub-samples from East Germany and Northern Ireland. However, as is indicated by table 2.1 below, the latter geographical area has been left out of the analyses in this report. The reason is that the North Irish sub-sample is too small to meet the requirements

³⁸ The topic in question, trust in food, may also be sensitive to public events and debates. As part of the country studies of institutional and social conditions, all teams were asked to monitor the media carefully in the period just before and during the survey data collection and to record significant occurrences.

Table 2.1: The National Sub-Samples. 2002.

	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
Sample Base ^{a)}	9761	9966	40000		19882	19898	n.a.
Gross Sample ^{b)}	7949	6104	13169		14054	19400	11621
Max. no. of call-backs	8	5	5		4	5	3
No. of Completed Interviews	1005	1002	1000	1000	1862	2006	1000
Response rate ^{c)}	.13	.16	.15		.13	.10	.08

^{a)} Pool of telephone numbers from which the actual sample is drawn

^{b)} Sample base minus non-used numbers, i.e. the actual number of telephone calls made to make up the sample.

^{c)} The number of completed interviews divided by the gross sample size.

of the analytical ambitions for this study, as it only consists of 295 respondents. This sets the total number of observations for the forthcoming analyses to 8575.³⁹

Table 2.1 above reports key figures for the seven sub-samples used in this report. The source for all of them is a national pool consisting of a large amount of telephone numbers. Respondents are drawn at random from this pool until the desired amount of interviews is completed. Using Denmark as an illustration, the Danish pool or base sample consists of 9761 telephone numbers, from which a gross sample of 7949 numbers was needed to complete the 1005 interviews. In other words, 13% of the gross sample actually resulted in an interview, leaving us with a response rate equal to .13 and a corresponding drop-out rate of .87.

Table 2.1 raises several issues. The most critical one is of course the discrepancies between the gross sample and the number of accomplished interviews in each of the national settings. Once a number is drawn from the sample base and called, the choice of informant follows standard procedures. The household member who most recently had birthday is asked to volunteer. If this person is not at home, or the phone call is not answered, the interviewer keeps on calling back a limited number of times. He may also make an appointment with a potential informant to call back at a certain day and hour should the primary contact take place at an inconvenient point of time. The interviewer also presents himself according to standard procedures and wordings, leaving the respondent free to accept or turn down the offer to participate in the survey. Needless to say, these routines do not prevent drop-outs from taking place. As we see in table 2.1,

³⁹ The results for Northern Ireland will be included in forthcoming analyses of the survey.

the response rates vary between .08 and .16. There is nothing alarming in these results; in fact, it is quite common that only 10 – 15 % of a given gross sample actually agrees to do an interview.

An important aspect of the routines just described, is that they minimise the risk for systematically precluding any social groups from participating. Still, the discrepancy between gross sample and number of completed interviews has a certain structure. Put boldly, the drop-outs fall in two broad categories, viz. '*refusals*' and '*other reasons*'. The latter is a technical category in the sense that the contact with the respondent was, for some reason, not established. In some cases, it is due to the fact that the call was unanswered, or the number out of use, non-existent or associated with technical problems. Also, some potential respondents are given up because they have been repeatedly called the prescribed maximum number of times. Yet another cause is that the telephone number was occupied or proved to belong to a company rather than a household.

A common cause for not obtaining interviews — classified as '*other reasons*' by some countries and '*refusals*' by others — is that there is no person belonging to the target population living in the household (anymore). Thus, a certain portion of the calls made are off the mark due to old or young age. Different reporting routines make it hard to give exact numbers for the category. But in the Norwegian survey 289 of the 6.104 calls are classified as missing the target population. In the report from the Danish poll institute, about 25% of the 369 recorded reasons for not obtaining an interview fall within the brackets of this category. But from the report alone it is hard to assess how many calls this actually involves.

Failing to obtain interviews is classified as '*refusals*' whenever the respondent actually turns down the offer to participate in the survey. Several reasons lead to such an outcome. Here, we must remember that telephone numbers are chosen at random, and that the interviewers call up people in all sorts of life situations that may or may not favour survey participation. Among the unfavourable circumstances we frequently find physical health problems, bad hearing, mental disability, and depression due to a recent divorce or death in the family. Furthermore, some telephone numbers belong to immigrants, in which case language problems are common. Yet another group of people find the time unsuitable for an interview. Respondents may also refuse because they on principle never participate in surveys or because they feel incompetent or have no interest in the topic for the interview. Finally, there is a certain percentage that simply hangs up when the interviewer introduces himself or refuses to participate without giving any reasons. In the Norwegian survey, about 10% of the total number of refusals is in this category.

As for the relative proportions of '*refusals*' vs. '*other reasons*', the former category of drop-outs is by far the larger one in all national sub-samples. However, the content of the reasons within the two seem to vary somewhat across these samples. In part, this impression obviously stems from diverging registering routines at the poll institutes involved. It

is therefore hard to go beyond the descriptions offered above to assess the relevance of such differences with respect to the quality of the seven sub-samples. But our inspections of the reports from the respective poll institutes give no reasons to turn on any yellow or red lights. Quite the contrary, the observed discrepancies between gross samples and completed interviews seem unproblematic. And at the end of the day, biases in each of the sub-samples are compensated for by factor weighting based on comparisons between the observed distributions of socio-demographic patterns and figures given by official statistical material. The weights are typically made up by combining information from the age-, gender- and region variables, and constructed in a way that ensures representativity along these dimensions. The end results have also been examined by expert partners in each country to look for biases that might still be there. No such problems of importance to our analyses were found. Technically speaking, we feel confident that our comparative study is based on high-quality quantitative data.

A final comment to be made is that the seven sub-samples are of different sizes. As can be seen in table 2.1, the Italian and British ones are larger than those from Norway, Denmark and Portugal. Also, the total number of respondents from Germany is high. This is due to future ambitions to look at regional differences in these countries. For the analyses presented in the actual report, however, no such comparisons are made; we merely compare countries, not regions.⁴⁰ For this purpose, national weights are employed to obtain representative sub-samples at that level. It follows that the number of reported observations throughout the analyses departs somewhat from the numbers given in table 2.1. It also means that our analyses are to be based on the seven sub-samples, aiming at comparing national averages with one another rather than conducting individual-level analyses for the sample as a whole. Such an approach would have implied seeing the six countries as constituting a region in its own right — which is hard to defend given our theoretical ambitions — and besides, would have raised a need for a quite different weight than the one we actually use. Instead, as indicated in chapter 1, we shall focus on social and institutional contexts with countries as the units of analyses.

2.4 THE QUESTIONNAIRE

The quality of our data is not merely a technical question. At the end of the day, it depends on the questions posed, the way they are formulated and in what succession they are asked. In this section, we offer a general overview of the questionnaire and the ideas behind it. Please refer to appendix 1 to examine its content and structure.

The questionnaire includes the following major items:

⁴⁰ Regional differences will be reported in future studies.

- ❖ *Measures of trust and concerns/worries;*
- ❖ *Practices and strategies for consumers in the roles as shoppers, eaters and citizens, with a particular focus on practices related to eating and purchasing habits, but also expressions of ‘voice’, like complaining, boycotts, and mobilisation;*
- ❖ *Views on the distribution of responsibilities between consumers and various institutional actors with regards to key food issues, viz. safety, quality, nutrition, value for money, and ethics; and*
- ❖ *Socio-demographic variables.*

The discussion in chapter 1 pointed to different ways to frame and explain variations in trust, as well as suggesting various mechanisms whereby trust is established. Naturally, taken as guidelines these ideas should be reflected in the choice of empirical indicators of trust for the survey. This is not accomplished in a straightforward manner, though, since a well functioning questionnaire is characterised by considerable simplification and splitting up of dimensions and sub-dimensions. The aphorism ‘*trust – in whom – with regards to what*’ provides the overall cues for these efforts. The resulting selection of measures of trust in food do not represent a comprehensive set of indicators, but rather distinct questions that were included in the survey — some as repetitions of earlier surveys, some for theoretical reasons. Considerable thought is also paid to the presentation and order of the items in the questionnaire. In particular, as trust in food may be — at least for some people and in some countries — sensitive and much politicised, we have reserved those questions for the last part of the questionnaire, so as to avoid alerting the respondents as much as possible.

More generally, the survey is introduced to the informants as a study of food, avoiding concepts such as ‘*trust*’, ‘*risk*’ or ‘*concern*’. The first part of the questionnaire is quite easy-going as it focuses on eating and shopping practices. A key proposition in the TRUSTINFOOD research programme is that the purchase event is central to the understanding of trust relations, and for that reason practices and food-procuring strategies are mapped in some detail in this way. Two obstacles impact the structure of the questionnaire. Firstly, since purchases may vary according to the type of food, parts of the interview are contextualised by linking the questions to particular foods selected for case studies, viz. beef and tomatoes. Secondly, there is a need to take into consideration that food purchases are not evenly distributed in the adult population; above all, these activities are gendered and, to a lesser extent, related to age and stage in life. For that reason, filters are introduced in the questionnaire — for instance at some point leaving out those who never buy beef or tomatoes. Still, a few general questions on strategies were asked to all informants, formulated in such a way that even non-purchasers could answer them.

The next section of the questionnaire concerns social distribution of responsibilities for key food issues. This is an important dimension in the institutional studies, where we study the distribution of responsibility for the various aspects of food (safety, quality, nutrition, ethics, and value for money) between public authorities, various market actors, experts, the media, consumer organisations, and individual consumers. The analyses focus on institutional and formal divisions, on the one hand, and the discursive framing on the other. The survey questions are meant — in a relatively simple manner — to link to these analyses.

After this, a new section of the questionnaire follows, dealing with several aspects of trust — avoiding the use of the word “trust”, of course. To illustrate the complexity involved, consider the indicators that we use in the present analyses:

- ❖ *Trust in other people.* Before introducing the specific trust in food issues a question on trust in other people in general was included. This particular question has been repeated in numerous comparative surveys, most notably in the World Value Survey.⁴¹
- ❖ *Trust in particular foods available in the marketplace.* This is a set of indicators that is supposed to reflect a relational type of trust where the perception of the relations is expressed through particular foods, each of them representing a distinct system of provision. When combined, they should form a general indicator of a relational type of trust. The foods — twelve in all — have been selected according to a varied set of criteria. For instance, beef and tomatoes were partly chosen because they were already selected as case studies. Others were picked to ensure varying degrees of generalisations (e.g. vegetables vs. tomatoes) and processing (e.g. tomatoes vs. canned tomatoes, beef vs. hamburgers and sausages). Certain items were also chosen to reflect conventional vs. alternative forms of production (e.g. beef vs. organic beef). Still others were decided on in order to include varying types of distribution (sausages for dinner vs. hamburger at a fast-food outlet vs. restaurant meals). The meat items were particularly selected to include a variety of production systems — and problems. Finally, a few simple, but contested foods like eggs and beef were included to allow for contrasts with highly processed items with a “healthy” image, such as low-fat products.
- ❖ *Confidence in food that bought and taken home for consumption within the household unit.* This focuses basically on trust in a private, non-relational setting — i.e. the consumer as eater.

⁴¹ Cf. Inglehart (1997)

- ❖ *Trust in terms of evaluations of the long-term developments within the food sector.* These indicators are supposed to reflect a kind of trust that refers to more generalised systems, but at the same time are contextualised by particular food related issues; viz. safety, quality, nutrition, ethics and value for money.
- ❖ *Trust in various institutionalised actors as information sources.* This refers to the ‘*trust in whom*’ dimension. It also represents a focus on the consumer as a citizen and media user. These are also indicators that most explicitly cover trust in institutional actors. In order to ensure a common situational framing, the questions are explicitly connected to a scandal with salmonella in chicken — an event that was assumed to be relatively familiar to all respondents.

The final set of questions concerns the respondents’ social background. The socio-demographic variables cover information about age, gender, family type, educational level, occupational status, and place of residence in terms of urbanisation, region and municipality. Apart from the latter, which is recorded and coded using standardised information routinely available via the informants’ telephone numbers, all questions have standard formulations and are pre-coded in relatively few categories.

Particular efforts have been made to ensure that the educational categories are comparable across national settings, recognising that both educational levels and school systems vary considerably between the countries that participate in the survey. This was also discussed in the wake of the pilot tests. It soon became clear that such variations cannot be accounted for in full detail. As a consequence, we are left with a comparative three-level variable, distinguishing between low, medium and high education.

No efforts have been made to include questions that could be used to include social status as a background variable. Studies on trust in food referred to in this report do not identify this as a particularly important feature for understanding variations in trust. Also, a satisfactory treatment of this dimension would require a series of additional questions about occupation and work, and considerable amounts of re-coding in the aftermath of the survey. For these reasons, social status was left out of the present study.

2.5 FINAL REMARKS: VARIABLES AND ANALYTICAL STRATEGIES

In the forthcoming analyses, only a minor part of the questionnaire is called upon. In addition to traditional background variables like gender, age, education, place of residence and household composition — cf. questions 25 through 30 — the study is based on the following questions: Q14 a – e, Q19, Q20, Q21 a – l, Q22 a – h, and Q23 a – e. The better part of them is concrete, straightforward and should pose only minor — if any — challenges for respondents and interviewers. However, following the pilot survey, a

few of them were supported with instructions to ensure uniform guidance to all respondents in all countries. The interviewers were told to probe for answers as follows:

Q14: Here the respondent is asked to compare various aspects of today's food consumption with the situation 20 years ago. Persons under 30 naturally have problems offering valid assessments. What we want the respondent to do is to compare today's situation with what he *believes* was the case twenty years ago.

Q19: This is a question about trust in other people in general. In the pilot, some respondents wondered whether it is about general trust within the food context. This is *not* the case. Informants in doubt should be made aware that the question is not delimited to any particular context.

Q21: Those who are in doubt with respect to what is meant by "sausages" should be told that the question concerns sausages eaten for dinner.

Q30: Here we want to know whether the respondent lives in a rural area, a town or a city. The three categories are defined in terms of number of inhabitants. A person's conception of what is what may differ across national settings. For instance, whereas Norwegians located in places with 50-99.000 inhabitants may consider themselves as living in a city, an Englishman will think of such locations as townships. Interviewers in all countries are instructed to stick to the definitions as they are spelled out in the questionnaire rather than subjective opinions in order to make the variable comparable across sub-samples. Still, due to this uncertainty, the answers should be analysed with care.

The methods of analysis used throughout the report are also relatively simple and straightforward. The basic presentation of variables and results are made in the form of cross tabulations. The main analytical tool is linear regression, offering easy comparisons of mean differences between countries. Some tests are based on logistic regression. These are run in the background, so to speak, and not shown in the text. Key implications of the various methods are explained as we go along.

With this we turn to the analyses.

CHAPTER 3

TRUST IN FOOD SAFETY

3.1 INTRODUCTION

As we outlined in the introductory chapter, trust is a multi-dimensional phenomenon. The present chapter looks at two facets: trust in foods in general and confidence in the food we buy and bring home to consume. We argue that they are interrelated, yet separate dimensions of trust; whereas the former refers to a generalised impression of the state of affairs in the marketplace, the latter is about the output of the food-procuring processes we engage in — i.e. the items that we actually choose and consume.

As for the ‘*trust in foods*’ dimension, the empirical analyses are based on twelve indicators of trust in as many types of foods. These include three fruits and vegetable items, six meat products and three miscellaneous foods. We analyse the trust levels associated with each of them in all of the seven geographical contexts. We also look at variations in rank-orders of trust levels associated with these items in each country. Next, the twelve indicators are combined into an overall ‘*trust in foods*’ index. In addition, nine of them are used to form two specialised indices; one for fruits and vegetables, and one for meat products. Moreover, the ‘*don’t know*’ categories are given particular attention, as they may be interpreted as a signal of uncertainty. We generally expect that,

- 1) *Trust levels are higher for non-contested foods;*
- 2) *Trust levels are higher in countries with few food scandals;*
- 3) *Trust levels vary across social divisions within each country.*

The final section of the chapter is devoted to confidence in the food we buy and bring home to consume. This, of course, is indeed a vital aspect of our lives as our well-being is directly dependent on successful access to safe foods. Even in settings where unsafe products loom large, consumers should be able to develop adequate strategies to reduce the risk to a minimum or avoid the hazards altogether. Thus, we anticipate that

- 4) *Confidence in the food we buy and bring home to the household is high even in countries ridden by major food scandals.*

3.2 TRUST IN FOODS

To begin with, let us present the twelve ‘*trust in foods*’ indicators. The measurement instrument that was used in the survey was:

“Do you think that the following types of food are very safe, rather safe or not very safe to eat?”

[Foods: fresh fruits and vegetables, fresh tomatoes, canned tomatoes, beef, organic beef, pork, chicken, sausages, burgers, eggs, low fat products, restaurant meals].

Obviously, these survey questions are specific in the sense that they mention particular foods. On the other hand, they are general because they don’t make any reference to foods that are actually bought by the respondents. We shall therefore interpret their answers as reflecting generalised assessments about types of foods — ‘*tomatoes*’, ‘*beef*’, etc. — rather than what ends up in their kitchens. Indeed, as we shall see throughout the report, the observed distributions hardly make sense unless framed in such general terms.

In view of what has already been said about trust and the many small and large food scandals in Europe over the last decade, we would expect that the consumers’ general confidence in certain types of produce is relatively modest. All things being equal, we assume that the levels of trust are lowest in areas where large scandals have taken place. We also expect these levels to vary across products, scandalous foods being associated with the lowest degree of confidence. On the other hand, negative trends may be combated and trust restored if the right steps are taken to improve food reliability. Thus, we may tentatively expect that countries where substantial efforts are made to solve food problems and prevent future hazards from happening will display higher levels of trust.

We begin by highlighting the proportions in each country claiming that any one of the twelve foods are ‘*very safe*’ to eat. The results are displayed in table 3.1 below. It is important to emphasise that those who are outside the ‘*very safe*’ category are not necessarily distrustful persons. Still, we expect that possible variations across geographical areas with respect to the magnitude of the category yield important information about trust in these settings. Besides giving the percentages of confident consumers associated with each produce, the table displays the average for the sample as a whole. Also, the max-min column shows the difference between the highest and lowest percentage for each row. This is, of course, not a proper statistics of dispersion, but simply a computation that is helpful in identifying the products that create the largest amounts of difference across the seven geographical settings.

As we see, the twelve foods included in the survey are made up by three vegetables and fruit items, six types of meat, and three products of miscellaneous kinds. The highest

Table 3.1: Percentage claiming that it is 'very safe' to eat ... in the various countries. Weighted results. N: Denmark (1001), W. Germany (1000), E. Germany (1000), G.B. (1563), Italy (2006), Portugal (1001), Norway (1004).^{a)}

	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal	Mean	Max – Min
Fre. fruit/ veg	57	51	39	40	79	37	65	53	42
Fresh tom.	58	51	31	33	78	37	63	50	47
Canned tom.	37	38	12	11	62	17	23	29	51
Beef	40	36	20	16	47	17	28	29	31
Organic beef	46	46	31	33	47	28	37	38	19
Pork	43	39	19	24	50	20	32	32	31
Chicken	30	18	15	24	50	20	24	26	35
Sausages	22	17	11	15	34	13	15	18	23
Burgers	10	4	5	4	18	2	2	6	16
Eggs	28	39	21	24	57	24	30	32	36
Low fat prod.	36	22	8	12	53	10	44	27	45
Restaurant m	23	14	11	13	32	6	16	16	26

^{a)} All twelve variables are dummies, coded 1 for 'very safe' and 0 otherwise (i.e. 'rather safe', 'not very safe', 'don't know'). Cf. Q21 a) – l). *The mean*: Calculated as the mean of the country averages.

scores are found within the first category: on average, more than 50% of the consumers consider fresh tomatoes, fresh fruits and vegetables to be 'very safe' to eat. Also canned tomatoes catch a relatively high average: 29%. At the same time, these foods are associated with the highest max-min scores, indicating that the support for the viewpoint varies substantially across the countries. For instance, whereas 78% of the British consumers consider fresh tomatoes to be very safe to eat, only in excess of 30% of the Germans share the same opinion. The difference between the two geographical areas is even larger for canned tomatoes: 62% vs. 11 – 12% respectively.

Considering the six meat products displayed in the middle section of table 3.1, the general impression is that trust levels are considerably lower than is the case for fruits and vegetables. Except from organic beef, the averages recorded in this category are at least 20 percentage points below those associated with fresh tomatoes, fruits and vegetables. Especially in the cases of burgers and sausages trust levels are low in many of the countries. Above all, this is true for burgers: on average, only some 6% feel that this is a 'very safe' kind of food, the proportions being as low as 2% in Italy and Portugal. Among the meat variables, the largest difference between national settings is associated with

chicken: whereas about half of the British consumers consider this kind of meat to be 'very safe' to eat, only 15% among the West Germans share the same opinion.

Turning to the miscellaneous foods in the lower part of table 3.1, the average trust level for eggs is of a middle-of-the-road magnitude: 32%. The lowest proportions are associated with restaurant meals, for which the overall country average is 16%. Let us note, however, that only 6% of the Italians share this opinion. As for low fat produce, the most noteworthy aspect of the distribution is the variations in proportions considering it a 'very safe' food, varying from a low 8% among West German consumers to a high 53% in Great Britain.

Looking at table 3.1 as a whole, by far the most striking distributive feature is that the highest trust levels are associated with British consumers — not only for some, but for every single food item asked for in the survey. Equally striking is the fact that the lowest scores are in all but two cases found in one of the two German regions. The exceptions are burgers from fast food outlets and restaurant meals, where Italy — joined by Portugal in the case of burgers — produce the lowest proportions of confident consumers. Typically, however, the two Southern European countries — in particular Italy — have the second lowest trust levels. The Nordic countries on the other hand — sometimes joined by Portugal — are generally located in the middle part of the distributions.

It is a paradox that the highest levels of trust in food produce are found among British consumers, who have been exposed to the one large food scandal after the other over the last decade. This is especially true for meat. It is hard to come up with a good explanation on this based on the available data. Parallel studies on institutional differences will probably bring us closer to an appropriate understanding. All we can say at this stage is that GB has implemented steps to combat the severe problems in the food sector — steps that may have contributed to a restoration of trust among British consumers. On the other hand, so have the Germans without obtaining a similar result. Institutional data enabling a comparison between the handling of the food crises in the two settings is likely to illuminate important aspects of trust-generating processes.

The complex nature of the trust phenomenon is further underlined when we compare our results with a previous study based on Eurobarometer 1998.⁴² In that survey, an aggregate measure based on consumers from many European countries claiming that it is safe to eat eggs, fish and meat, locate Finland and Norway at the upper end of the trust index, while UK and Germany occupy the middle and the lower parts of it, respectively. Moreover, in this survey Italian consumers display higher proportions of trust than do the British, while the Portuguese are closer to the German levels. The results are of course not directly comparable to ours since different indicators make up the indices, but they

⁴² Cf. Berg (2000: 32 – 34).

Table 3.2: National rank-orders of foods that are considered to be 'very safe' to eat. The ranking is based on results from table 3.1.

Rank	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
1	Fresh tom.	Fresh tom.	Fre. fruit/ veg	Fre. fruit/ veg	Fre. fruit/ veg	Fre. fruit/ veg	Fre. fruit/ veg
2	Fre. fruit/ veg	Fre. fruit/ veg	Fresh tom.	Fresh tom.	Fresh tom.	Fresh tom.	Fresh tom.
3	Organic beef	Organic beef	Organic beef	Organic beef	Canned tom.	Organic beef	Low fat prod.
4	Pork	Pork	Eggs	Eggs	Eggs	Eggs	Organic beef
5	Beef	Eggs	Beef	Pork	Low fat prod.	Chicken	Pork
6	Canned tom.	Canned tom.	Pork	Chicken	Chicken	Pork	Eggs
7	Low fat prod.	Beef	Chicken	Beef	Pork	Canned tom.	Beef
8	Chicken	Low fat prod.	Canned tom.	Sausages	Organic beef	Beef	Chicken
9	Eggs	Chicken	Restaurant m	Restaurant m	Beef	Sausages	Canned tom.
10	Restaurant m	Sausages	Sausages	Low fat prod.	Sausages	Low fat prod.	Restaurant m
11	Sausages	Restaurant m	Low fat prod.	Canned tom.	Restaurant m	Restaurant m	Sausages
12	Burgers	Burgers	Burgers	Burgers	Burgers	Burgers	Burgers

nevertheless indicate that some important changes may have taken place between 1998 and 2002. They also suggest that trust is a phenomenon that may change in either direction over time. For while today's Britain apparently display higher proportions of confident consumers, Italy may have seen the opposite development while the Germans seem to have remained low on trust during the whole period.

3.2.1 NATIONAL RANK-ORDERS

Considering the results in table 3.1 in the light of our initial assertions, the observed patterns obviously need more elaborate explanations. Indeed, the scores for meat products are lower than for fresh fruits, tomatoes and vegetables, which support the claim that trust levels are typically lower for products associated with food scandals. Still, the support seems only partial because the average proportions of consumers having confidence in meat products are relatively high even — not to say especially — in countries marked by serious food scandals like Britain and Portugal. And while institutional change in Britain may account for at least some of this, the same argument cannot be made for a country like Portugal where meat is valued in spite of the fact that few measures designed to increase trust levels have been implemented.

A way to shed additional light on the phenomenon is to shift from a focus on trust levels to a more qualitative approach. Such a step is taken in table 3.2 above. It displays national rank-orders of foods that are considered ‘*very safe*’ to eat, using qualitative labels rather than proportions. For each geographical area, the foods included in the survey are ranked from 1 to 12 based on the percentages given in table 3.1. The first impression is that the national rank-orders are astonishingly similar. The typical top-three products are fresh fruits and vegetables, fresh tomatoes and organic beef, the former two being ranked first or second in all seven settings. At the bottom end of the list we find burgers, restaurant meals and sausages. Burgers are the least trusted kind of food everywhere. Middle-positioned products include canned tomatoes, eggs, chicken, pork and beef. The rank-orders also indicate a large variation in the assessment of low fat products. This item is in fact the only one that can be found in all three sections of the table. To exemplify, low fat products are among the top-three in Portugal, but ranked among the bottom-three in Italy and the German regions. It is hard to find a good explanation for this. Obviously, the “low fat product” label gives different connotations in different countries.

Viewed as a “menu”, the pattern in table 3.2 suggests that larger proportions of consumers trust “green” foods than is the case for meat products. At a deeper level, the result may also be interpreted in terms of a nature vs. manufactured axis.⁴³ Put boldly, more people have confidence in natural, non-processed foods than in sophisticated, manufactured products. Sausages and burgers are probably good illustrations of the latter. The low ranking of restaurant meals is likely to refer just as much to kitchen hygiene as to the raw materials that go into the various dishes — whatever they are.

Although the national rank-orders resemble one-another, there are important variations to notice in table 3.2. The most significant one is probably that the GB ranking is in fact quite different from all others in a particular respect. True, British consumers put fresh fruits, vegetables and tomatoes highest on the list just as everybody else. But the first meat product only appears as number seven. In all other countries, some meat product always comes third or fourth. As a consequence, a look at the rank orders shows that the meat items are concentrated low down in the case of Britain, whereas for the other countries they spread out in all sections of the table. This strongly suggests that even though trust appears to have been successfully restored in Great Britain, there is a second, underlying tendency in the material, viz. a certain— after all — scepticism towards meat.

Similar underlying tendencies are also evident in other countries. For instance, in Portugal the outbreaks of BSE have raised considerable amounts of political turbulence, but without having culminated in adequate measures and improved routines.⁴⁴ Thus, unlike British consumers the Portuguese still value meat products, but beef is — quite sugges-

⁴³ Cf. Murdoch et. al (2000), Smith (1998).

⁴⁴ Cf. Goncalves (2000).

Table 3.3: Trust in Food Indices 1 – 3 by Countries. Weighted estimates. Linear Regression. 2002.^{a)}

	Index 1: Trust in Foods	Index 2: Trust in Fruits/Veg.	Index 3: Trust in Meat
Constant (i.e. East Germany)	20.7***	28.1***	19.2***
Denmark	15.1***	22.6***	12.7***
Norway	10.5***	18.5***	7.3***
West Germany	-1.9	-0.6	-2.1
Great Britain	30.1***	44.9***	22.0***
Italy	-1.3	2.0	-2.3*
Portugal	10.8***	22.2***	3.8*
N	8567	8575	8570
Adj. R ²	.184	.173	.104
Overall Index Mean	29.7	43.8	25.1
No. of Items in Index	12	3	6
Cronbach's Alpha	.8476	.7462	.7378

*** = p<.001 ** = p<.01 * = p<.05

^{a)} The indices are based on the dummy variables in table 3.1. *Index 1*: all items are added up. *Index 2*: the three fruits- and vegetables items are added up. *Index 3*: the six meat items are added up. In a second step, each index is divided by its number of items, and then multiplied by 100. As a result, they all vary between 0 and 100. *Eggs, low fat products* and *restaurant meals* are not part of any of the specialised indices 2 – 3. *Overall index mean*: Calculated mean of the predicted scores for each geographical area.

tive — ranked as low as number seven. The Nordic countries provide us with additional illustrations. Whereas Denmark has been haunted by several outbreaks of salmonella, Norway was at the time of the survey ridden by food scandals relating to the handling of meat among retailers and low hygienic standards in restaurant kitchens. This may account for the low ranking of eggs and chicken in Denmark, and the fact that beef and restaurant meals are ranked somewhat lower among Norwegian than Danish consumers.

3.2.2 TRUST INDICES

The twelve food items in table 3.1 easily lend themselves to the construction of several trust indices. As we know, these variables are dummies, coded 1 for 'very safe' and 0 otherwise. We begin by simply adding all of them together to form a general food trust index that varies between 0 and 12, where the lowest value refers to people that do not find any of the products 'very safe' to eat, and the highest to consumers who have maximum confidence in all twelve items. In the same way, we also construct two specialised indices, adding up the three fruits- and vegetables items and the six meat prod-

ucts, respectively. Finally, in order to facilitate direct comparisons, all indices are transformed to fit a common scale that varies between 0 and 100.⁴⁵ As indicated by the Cronbach's Alpha values reported in table 3.3 above, the reliability for all three indices are satisfactory.⁴⁶

Regressing each of the three indices on the country variable, we get the results as shown in table 3.3. Of course, since we are dealing with basically the same data as before, there are no big surprises coming out this analysis. However, we do get a more generalised picture and an opportunity to test our results statistically. Starting out with the first and most extensive index, it summarises information from all twelve food items. The overall average value is 29.7 index points, which means that the respondents generally find 29.7% of the food indicators 'very safe' to eat. But, as the coefficients show, there are large variations associated with this value. The most confident consumers are also this time around found in GB, where on average 50.8% of the foods included in the index are considered 'very safe'.⁴⁷ Next come Denmark, Portugal and Norway. All of these countries are significantly different from the two German regions and Italy, where consumers feel 'very safe' only with respect to about 20% of the food items. Let us also notice that the Italian and German populations are not statistically different from one another. They are, in other words, the low trust consumers in our survey along this indicator. Nevertheless, in view of some of the results reported in table 3.1 we would expect Portugal to classify as a low trust country as well. As we shall see shortly, the distinguishing factor is fruits- and vegetables; for whereas relatively high levels of confidence in such products are found among Portuguese consumers, the Germans and Italians are characterised by low scores across the whole spectre of foods included in the survey.

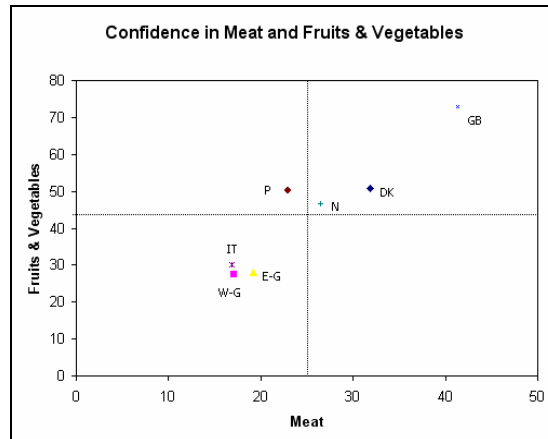
Now turning to the specialised indices 2 and 3, let us begin by noticing once again that the overall trust level associated with fruits and vegetables is much higher than in the case of meat products — in fact, the mean index values indicate that it is close to twice as high. On the other hand, confidence in green produce generates larger differences across the seven settings than do meat. For instance, whereas British consumers consider 44.9 percentage points more fruits- and vegetable items 'very safe' to eat as compared to the East Germans the corresponding difference is only 22 percentage points on the meat index. Nevertheless, the same overall pattern that we saw in the case of the extensive index is produced once more: again, Italy and the two German regions appear as low-trust areas, negligibly different from one another but clearly distinct from Britain, Denmark, Norway and Portugal. Still, we shall not overlook the fact that, whereas the Portu-

⁴⁵ Using index 1 as an illustration, this is done by adding together each respondent's scores on the 12 variables in table 3.1, then dividing the sum by 12, and finally multiplying this number by 100.

⁴⁶ Index reliability is considered satisfactory when the alpha value exceeds .7. Cf. Ringdal (2001).

⁴⁷ The calculations are as follows: [value for East Germany = constant] plus [value for GB] = [20.7] + [30.1] = 50.8 index points or 50.8% of the items are considered as 'very safe' to eat.

Figure 3.1: Trust map I: Combining the fruits/vegetable- and the meat produce index.



guese undoubtedly display a higher level of trust with respect to fruits and vegetables, they are not as different from the low-trust consumers in Germany and Italy with respect to meat: only about 4 – 6 %-points apart on the index scale.

Summing up the observed tendencies, we have put together the two indices to produce a graphical “trust map”. In figure 3.1 above, the fruits- and vegetables variable is defined as the Y-axis while the meat index runs along the X-axis. The gridlines in the figure represent the overall averages for the two variables, calculated as the mean of the predicted means for each geographical area. In this way we get four squares. In the upper right-hand one we find the countries in which the consumers score above average with respect to trust in both green produce and meat. These are GB, Denmark and Norway. The high levels of trust among the British are again apparent beyond any doubt. In contrast, the lower left-hand square accommodates countries in which the overall percentages of ‘*very safe*’ food items are below average on both indices. Here we find — to nobody’s surprise — Italy and the two German regions. Moving to the upper left square, which is assigned for those who score above average on fruits and vegetables and below average on the meat index, there is only one country: Portugal. We might say it occupies a unique position in the trust map, as the Portuguese on the one hand distinguish themselves from the low-trust countries by a higher overall confidence in green produce, and on the other differ from the high-trust areas by having relatively modest scores on the meat index. The latter characteristic makes sense in view of the substantial BSE crisis in the country.

Finally, we notice that the lower right-hand square is empty. It means that overall high-level trust in meat products never is accompanied by low confidence in fruits- and vegetables — at least not for the countries included in the present survey.

3.3 THE IMPACT OF SOCIAL STRATIFICATION

So far, we have described the differences between the seven settings merely as qualitative distinctions between entities. They have not been explained as such, other than by fragmentary references to certain events that are likely to have had an impact. But the differences may of course be due to a wide range of causal mechanisms. For instance culture, historical developments, structural patterns and institutional arrangements specific to each country may all account for major parts of the observed variations in trust assessments. Such assessments are at the heart of our research programme, and shall be pursued in a number of forthcoming reports.

However, the variations may also be due to differences between social groups. After all, trust conceptions are constructed in group processes, and as such subjected to systematic influences from socially stratifying factors like gender, occupation, education, income and commitments as reflected in household activities, daily routines, habits and responsibilities. If so, the impact of social stratification must be accounted for. This need not run counter to hypotheses about the effects of macro-level arrangements. Quite the contrary, since group processes are conditioned by cultural, organisational and institutional environments, such macro influences are likely to have different impact on individuals acting in different social settings, thereby — at least in part — accounting for possible group-specific variations in the conception of trust. In as much as that is the case, they are the underlying factors that must be covered in any comprehensive list of trust-generating mechanisms. However, it is far beyond the scope of this report to develop an exhaustive perspective of this kind. But as a first step down the road, it makes sense to take account for the contextual dependency of social processes. In this case it means to conduct separate analyses in each of the seven settings, thereby keeping the cultural, organisational and institutional factors constant.⁴⁸

⁴⁸ We are not blind to the possibility that national contexts may in fact be too wide to inject enough explanatory power into the analysis. Instead, geographical regions — and not states — may be the relevant contextual basis. Subsequent studies will explore this line of thinking.

Table 3.4: The Impact of Social Stratification in Seven geographical areas. Dependent variable: Trust in Foods (Index 1). Weighted estimates. Linear Regression. 2002.

Dimensions	Variables	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
	Constant	46.4***	10.3	25.7***	33.1**	38.9***	8.0 [□]	10.5
<u>Background:</u>	Gender	-5.4**	-9.7***	-5.7***	-3.0*	-5.0***	-3.2**	-7.0***
	High Education	-0.4	-3.5 [□]	3.0*	0.4	-2.3	-1.6	3.2 [□]
	Age	-0.02	-0.07	-0.04	-0.02	-0.2*	-0.03	-0.006
<u>Househ. Comp.:</u>	No. Persons	-2.2	-0.9	0.3	-2.0**	-0.7	0.9*	0.5
	No. Pers. u/18	3.1 [□]	1.9	-0.7	2.6*	0.3	-1.4*	-1.4
<u>Location:</u>	Rural	5.7*	2.5	3.4*	1.5	1.2	2.4*	2.6 [□]
<u>Occupation:</u>	Students	1.5	9.0**	0.3	15.0***	-3.9	3.8 [□]	-1.6
	Pensioners	3.5	-5.5 [□]	4.9*	1.4	4.4 [□]	2.5	-3.0
	Home Workers	7.1	1.7	0.6	1.8	6.1*	0.6	1.5
	Unemployed	-1.2	2.8	-10.8**	3.7 [□]	0.9	1.7	3.7
<u>Responsibilities:</u>	Buys food occ.	2.4	1.6	-1.1	-6.6	-0.8	2.8 [□]	4.4 [□]
	Buys food reg.	1.9	3.7	-1.7	-6.7	-2.9	1.4	1.2
Eating Habits	Eat Vegetables	-1.9	2.8*	-2.2*	-0.5	0.3	0.5	1.0
	Eat Meat	0.3	3.6*	1.4 [□]	0.1	5.8***	1.1 [□]	3.5***
	N	976	977	930	954	1377	2000	987
	Adj. R ²	.007	.064	.059	.010	.053	.016	.040
Index Means		35.8	31.2	18.8	20.7	50.8	19.4	31.5
Cronb's Alpha		.8830	.8562	.7413	.7374	.8410	.7863	.7568

*** = p<.001 ** = p<.01 * = p<.05 [□] = p<.10

Variable definitions: *Trust index 1:* All twelve food items from table 3.1 added up. Cf. table 3.1 & 3.3. *Gender:* M = 0, F = 1; *High Education:* University low levels or higher = 1 Other = 0; *Age:* in years.; *Rural:* Living in the countryside/ rural district = 1 Other = 0; *Buys food occasionally & Buys food regularly:* Yes = 1 No = 0 (Reference category is 'Never buys food'); *Eating Habits:* the 'Vegetables' and 'Meat' variables are both continuous, varying from Never = 1 to Daily = 5. *Index Means:* The average index score in each geographical area. Cf. table 3.3.

Moreover, in as much as observed differences are linked to country-specific underlying macro conditions, it follows that the variables that produce variations in trust assessments at the social level are likely to vary somewhat across national contexts. As a consequence, the trust phenomenon should be modelled differently for each country. Such a strategy will be pursued in subsequent reports. In a comparative study like ours, how-

ever, the primary aim is to gain insights into what make the seven settings different, rather than developing exhaustive, explanatory models for each of them individually. We are, in other words, committed to follow a different analytical path, viz. to control for the same social factors in all national contexts in order to assess the relative impact of these variables across the defined settings.

The analysis is presented in table 3.4 above. Using index 1 as dependent variable, the general impression is that demographical factors and social commitments as measured by certain activities and responsibilities have only modest impact on trust assessments. This is evident from low and few statistically significant coefficients, as well as modest amounts of explained variances. Moreover, the model obviously fits some countries better than others. For instance, while the explained variance is about 6% in the case of Norway and West Germany, it is as low as 0.7% for the Danish sub-sample. The latter result indicates that social division — with an exception for those generated by gender and location — has little impact on trust assessments in Denmark. The high degree of social egalitarianism with respect to trust in foods among Danish consumers has also been noted by previous research in the field.⁴⁹

The only variable that — *ceteris paribus* — seems to have a statistically significant effect in all countries is gender.⁵⁰ Women everywhere are less likely than men to consider the food items included in the index as ‘*very safe*’ to eat.⁵¹ The difference is largest in Norway (9.7 index points) and smallest in Italy (3.2 index points). In general, since women often have the overall responsibility for the household’s food activities, this could in part explain a higher degree of scepticism to what is offered on food markets. Also, food is a typical female arena; perhaps with the exception of party-time foods and ‘*haut cuisine*’ women’s knowledge and interest in cooking and diets typically surpasses that of men.

Still, we should note that the differences between male and female trust levels are statistically as well as substantially significant even in countries where men and women are believed to enjoy high degrees of equal status. In that respect, our results are the opposite what might have been expected prior of the analyses: higher equality should lead to reduced differences between the genders. Our data only permits us to speculate about the finding. Again comparing Norway and Italy, a place to start is to notice that the division of labour between men and women are obviously different in the two countries. A possibility could be that Italian men are more engaged in food-related activities than their Norwegian counterparts, and thus develop attitudes more in line with those held by

⁴⁹ Cf. Kjærnes (2001).

⁵⁰ The gender effect is, however, not significant in the East German sub-sample. But this may just as much result from a low number of observations as it is reflecting the true situation among consumers in this region.

⁵¹ This is in line with previous research: O’Doherty Jensen (1997), Berg (2000), Siegerist (2000).

women. A complementary explanation would then be that Norwegian men are distinguishing themselves by largely leaving the kitchen arena to their (full-time or part-time) working female partners, thereby developing somewhat different views on food safety.

The next background variable is high education. Here, the results are not as consistent. For instance, the effect of high education is negative in some countries and positive in others. Also, it is statistically significant below a 5% level only in West Germany, where higher educated persons are more confident than consumers with lower education, all things being equal. These tendencies indicate that the education variable may summarise different mechanisms — or combinations of mechanisms — in the various national contexts. For instance, higher educated persons may get well-paid jobs enabling them to avoid low-price but unsafe market places, which in turn raise their confidence in foods as they know it. But education also means knowledge and a generally easier access to information. This may in fact lead to both increased and reduced levels of trust, depending on whether knowledge about the hazards of food production also is accompanied by information about how to avoid the dangers.

As for the impact of age, the direction of the effect is consistent: older persons are generally less confident in food as compared to younger people. However, the impact is only statistically significant in GB. Here, we must remember that the age effect is controlled for age-related factors like household composition and being a pensioner.

We would expect that the household composition would influence one's trust assessments. To begin with, since shopping and preparation of food tend to be a major concern and time-consuming activity in larger units, we would anticipate that a certain degree of knowledge and routinisation would evolve, and in turn, based on such skilled practice, a higher level of trust in foods in general. Secondly, being responsible for children could have the opposite effect, generating higher levels of scepticism when assessing options available in the marketplace. As can be seen in table 3.4, this only seems to be the case in Italy: the larger the household, the higher the index score, and the more children, the more caution are found among the consumers. In East Germany, however, it is the other way around: here, higher degrees of trust in foods are found in smaller household units with several members less than 18 years of age. As for the remaining national settings, household composition is not significant below a 5% level.

We would also expect location to be important in the sense that rural households tend to be more trustful than urban ones. The expectation is supported by the data in Denmark, West Germany and Italy — and perhaps in Portugal as well.⁵²

As for the impact of the occupational dimension, the analysis controls for various positions outside the work institution. The omitted category, to which the effects of belong-

⁵² In Portugal, the effect is statistically significant on a 10% level.

ing to these groups are compared, is employees in the private and public sectors, including the self-employed. As a general tendency, consumers at the outskirts of the labour market don't stand out from those inside it with respect to trust in food. There are, nevertheless some differences to notice. For instance, students are more confident than employees in both Norway and eastern region of Germany. In West Germany and perhaps in GB as well, the same tendency is found among pensioners.⁵³ Moreover, in Britain full time housewives and home workers are reporting higher trust levels than do workers in the labour market. This could be the British variant of the Italian household size effect: the more time spent on food activities, the higher the skills and the higher confidence in the handling of the daily challenges involved. Finally, we should note the strong negative effect on trust found among unemployed consumers in West Germany. This may tentatively be interpreted as a conveyance of system distrust from the work institution into the food domain — i.e. a generalisation of discontentment with the way society works for them, and thus an infusion of scepticism into an area of life that is already characterised as a low trust phenomenon in the German context.

The second last dimension included in the analysis concerns food related activities and habits. The first indicator is shopping responsibilities, which does not have a statistically significant impact on trust assessments as we measure it: those who shop food occasionally or regularly don't have a higher or lower degree of trust in foods than people who never engage in this activity. At its face value, the result run counter to our argument above about knowledge, skills and experience. Once again, the data only permits speculations about the reasons why; the only additional, technical information to notice is that the two variables are only modestly correlated.⁵⁴ But tentatively, we may suggest that the above argument essentially is about involvement, and as such might be summed up by the gender variable; food is a “gendered” activity, and more of an integrated part of life than merely “shopping”. As we have already seen, women — who are the typical food shoppers and normally those who are most concerned with food issues and diets — are generally less likely to trust food products than men. If so, the phenomenon reflected by our shopping-for-food dummies is merely everyday routine, perhaps even a disagreeable “must”, and not involvement as such — at least not to the extent that it makes any difference in general assessments about trust in foods.

On the other hand, the last dimension in the model — eating habits — seems important for the construction of trust conceptions. This seems to be especially true for meat consumption. In all national contexts but the Danish one, the more often meat is eaten, the

⁵³ The GB result is statistically significant at the 10% level.

⁵⁴ The Pearson correlation coefficient typically varies between .10 and .25.

higher is the reported level of trust.⁵⁵ It is not easy to find good reasons for this. However, we do notice that the effect is stronger in countries that have gone through severe meat crisis — i.e. Britain and Portugal — which suggest at least two alternative, perhaps complementary explanations: one is that trust in meat has been restored, and the other is that frequent meat-eaters are in need for more explicit justifications for their choice of diet. But also other mechanisms are apparently at work, as illustrated by the by German meat eaters among whom the increases in trust levels are modest in spite of the turbulence created by meat production. As for the second indicator on eating habits — vegetable eating — the effects are not as consistent. For instance, in Norway trust levels increase with how often green produce is eaten, while the opposite is true for West Germany. In the five other national settings, the frequency of vegetable eating does not seem to matter much.

In rounding off this section, two commentaries seem relevant. Firstly, many of the variables included in the analysis in table 3.4 indicate that the interrelationship between aspects of practice in everyday life and trust in foods should be further explored in subsequent studies. This would not only imply an elaborated focus on such factors as gender, food-procuring strategies and eating habits, but also on the complex interrelationship between attitudes, information-processing and action.

Secondly, there is every reason to once again emphasise that although there are substantial differences between the countries, the variances within each sub-sample that are explained by the model are low. The results must therefore be considered as tentative, and the model itself should primarily be seen as an exploratory device. This suggests two alternative routes for future research. On the one hand, the contexts should be further delimited; the national setting may be too wide to enable precise identification of the social mechanisms that generate variations in trust assessments. On the other hand, the generally poor impact of traditional stratification variables may indicate that cultural, organisational and institutional arrangements are the real keys to a deeper understanding of the trust phenomenon.⁵⁶ Either way, a further sophistication of quantitative approaches as well as qualitative in-depth analyses is called for. For that reason, in table 3.4 we have also marked variables that are significant at a 10% level. These are effects that are not meeting the traditional thresholds of statistical significance at $\alpha < .5$, but they are still close enough to be considered again in more sophisticated models or as starting points for introducing new ideas and perspectives into the research. After all, as pointed out by many authors, there is nothing magic about the traditional thresholds; in fact, us-

⁵⁵ In Italy, the effect is statistically significant at a 10% level. In the eastern regions of Germany no significant effects from meat eating is found. However, as already pointed out, the sub-sample in question is small.

⁵⁶ Cf. our discussion in sections 1.2 & 1.3.

ing a 10% level is quite common.⁵⁷ Especially in exploratory approaches it makes sense to accept a higher risk for rejecting a true null hypothesis of no association in return for a lower chance for ending up with a false H_0 .⁵⁸

3.4 THE 'DON'T KNOW' CATEGORY

As shown in section 3.2, the measurement instrument for each of the twelve food items has three response categories: 'very safe', 'rather safe' and 'not very safe'. There are, however, two more options not explicitly offered to the respondent but still possible to end up with if the person being interviewed finds it difficult to assess the safety level. One is of course the 'no answer' category, to which very few respondents are allocated to. The second "hidden" option, on the other hand, is far more interesting, viz. the 'don't know' alternative which is chosen by a small but still substantial minority of respondents. Up till now, they have been allocated to the zero-category on the food item dummies. In this section, we take a specific look at them.

From a substantial point of view, the 'don't knows' deserve our attention because they stand out as having a unique position among the respondents. Obviously, the category is not a part of the 'very safe' – 'not very safe' continuum. To illustrate, it is inadequate to consider it 'neutral', because that would mean to place these respondents in the middle of the distribution and, in consequence, to merge them with those who answer 'rather safe'. Also, it would be misleading to define them as persons who are feeling more unsafe than 'not very safe'. Indeed, a strong feeling of distrust could in fact be a reason why they are not able to relate to our trust continuum. Nevertheless, it is only one among several possibilities. For instance, it could also be because one simply takes the food market for granted and don't want to spend a lot of time and energy thinking about how safe particular foods are. Since we all need food and everybody is compelled to use the shops and market places in one's more or less immediate surroundings, why worry about trust at all? A third reason might be repression of fears; one simply doesn't want to be

⁵⁷ Cf. Blalock (1979:158 – 161), Agresti & Finlay (1986: 146 – 147), Battacharia & Johnson (1977: 174).

⁵⁸ Say we have strong theoretical grounds for expecting that persons with high education have more trust in foods. If trust is a composite phenomenon — as it surely looks like — the association between the two variables is hard to establish at $\alpha = .5$. Introducing $\alpha = .10$ as a threshold may take us around the obstacle, since it now becomes easier to refute the null hypothesis. But the option represents a trade-off between two considerations. Given that there is no association between high education and trust assessments in the population, the risk for refuting a true H_0 has now doubled. On the other hand, given that the association is actually there, the probability for ending up with a wrong conclusion by not refuting H_0 is lowered. In exploratory situations it may be worthwhile to "trade off" a higher risk for type-I error in exchange for a lower type-II probability, since it may arouse curiosity and inspire further research.

Table 3.5: The ‘Don’t Know’ Indices by Countries. Weighted estimates Linear Regression. 2002.^{a)}

	Index 4: Don’t Know About Trust in Fruits/Veg.	Index 5: Don’t Know About Trust in Meat
Constant(i.e. East Germany)	9.1***	4.8***
Denmark	-5.4***	0.4
Norway	-4.1***	0.1
West Germany	-4.0***	-0.6
Great Britain	-4.9***	4.7***
Italy	-3.0***	4.5***
Portugal	0.7	8.7***
N	8575	8570
Adj. R ²	.016	.034
Overall Index Mean	5.9	7.3
No. Items in Index	3	6
Cronbach’s Alpha	.4263	.6781

*** = p<.001 ** = p<.01 * = p<.05

^{a)} The indices are based on dummy indicators where the ‘Don’t Know’ category is coded 1 while all other options are given the value 0. *Index 4*: three fruits- and vegetables items are added up. *Index 5*: six meat items are added up. In a second step, each index is divided by its number of items, and then multiplied by 100. As a result, they both vary between 0 and 100. *Eggs, low fat products* and *restaurant meals* are not part of any of these indices. *Overall index mean*: Calculated mean of the predicted scores for each geographical area.

confronted with the hazards involved in food consumption. Such persons would probably be bewildered at being confronted with questions about trust since they are defined as irrelevant to their daily lives or a threat to their mental well-being.

Whatever the case might be — the data does not permit precise interpretations here — the ‘don’t knows’ seem to have two things in common; they fall outside the ‘very safe’ – ‘not very safe’ continuum, and they relate to it by demonstrating a high degree of uncertainty about the trust issue raised by the survey question. As a consequence, given its composite nature it is difficult to be precise about possible motives for choosing ‘don’t know’ as an appropriate answer; many different factors are likely to contribute to the allocation of respondents to the category. However, in as much as uncertainty is involved, we generally expect a higher proportion of ‘don’t knows’ in countries ridden by recent food scandals. Also, we anticipate that kind of answer to be more common in relation to particular foods associated with risk and suspicion than with produce that don’t raise such sentiments.

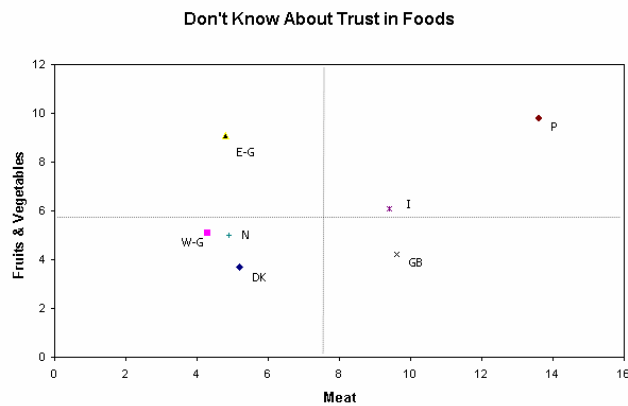
In table 3.5 above two indices on the ‘*don’t know*’ position is presented: one on fruits and vegetables and one on meat produce. They are constructed exactly in the same way as the trust indices 2 – 3 in table 3.3, the only difference being that this time around it is the ‘*don’t know*’ answer that is coded 1 and all other answers as 0. The Cronbach’s alpha scores indicate somewhat lower reliability than desirable, especially for the fruits- and vegetable index. This may reflect the composite nature of the ‘*don’t know*’ position, and the fact that only three items are included in the index. Still, the substantial and intuitive adequacy of the indices provides us with sufficient justifications for using them — although with care. As can be seen in table 3.5, the average index values for the vegetable and meat ‘*don’t-know*’-indices are 5.9 and 7.3 respectively, which indicate that the use of the ‘*don’t know*’ category is quite modest with respect to questions about green produce as well as those about meat.

Starting out with the fruits- and vegetable index, the analysis shows that the highest frequency of ‘*don’t know*’ answers are found in the eastern region of Germany and in Portugal; on average, consumers in these areas are unable to assess trust levels in relation to some 9% of the items included in the index. The countries in which the ‘*don’t know*’ answer is least common are Denmark and GB. Again the tendencies support our general anticipations, since the public debate in these settings are characterised by an overriding focus on meat scandals.

Now turning to the meat index, a somewhat different pattern emerges. Here, consumers in both German regions, together with the Danes and Norwegians, are less likely to answer ‘*don’t know*’ as compared to consumers elsewhere. The Portuguese are by far the most liable ‘*don’t knowers*’ while the British and Italians intake a middle position. Moreover, as compared to the fruits- and vegetables index, we get a larger range of variations across national contexts along with the generally higher number of instances where respondents are unable to assess their trust levels by placing themselves on the trust continuum. Meat is, in other words, generating more uncertainty among consumers than are green produce — even to the extent of refusing the trust continuum altogether.

Bringing the two indices together in a graphical display produces the “Don’t Know Map” in figure 3.2. The gridlines in the display indicate the average values on each index. In the upper right-hand square, then, we find those countries whose consumers have an above average liability to answer ‘*don’t know*’ to both green produce and meat items questions. The Portuguese stand out as occupying a unique position in this respect, but also the Italians are framed within the square. In the lower left-hand square, on the other hand, we find the countries in which the ‘*don’t know*’ category is used below average frequency on both green produce and meat indicators. Here we find West Germany, Norway and Denmark. In these contexts, consumers are to a larger degree than elsewhere able to make up their minds about trust levels. Thus, we find countries that end up in the square for different reasons: whereas the Norwegians and Danes are high-trust

Figure 3.2: The 'Don't Know' Map. Combining the 'Don't know' scores on the fruits & vegetable- and the meat produce index.



consumers, the West Germans on their part are discarding the 'don't know' category because they generally have low confidence in foods.

As opposed to both of these squares, the two remaining ones are settings in which consumers have an above-average liability to choose 'don't know' on one of the indices, and a below-average to do so, on the other. In this respect, the East Germans and the British appear to be at the respective poles; while the former are uncertain about green produce and not as uncertain about meat, the opposite is true for the latter. Thus, once again we find traces of an underlying, still prevailing scepticism towards meat among British consumers. A small, but still apparent proportion of them are unable to place themselves on the trust-in-meat continuum — to be precise, on average the 'don't know' option is chosen for 9.5% of the meat items in GB.

3.5 CONFIDENCE IN FOOD BOUGHT FOR ONE'S OWN HOUSEHOLD

In the last section of this chapter we are shifting the focus from trust in foods as general entities, to confidence in the foods that are bought for one's own household. Again, the focus is on food safety. The measurement instrument used in the survey is the following:

“To what degree are you confident that the foods bought for your household are unharmed?” (A large degree/ some degree/ a small degree).

A 'large degree' of confidence in foods that are bought, taken home and eventually consumed obviously depends on many factors. One is that the marketplaces are actually having safe foods for sale. This does not imply that everything available holds a high

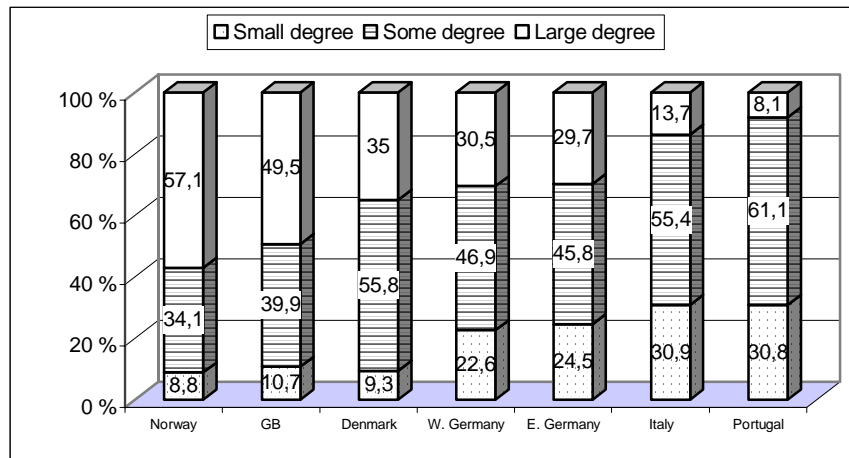
standard, or even that most items on the market are acknowledged as high-quality products. It is sufficient that the individual consumer is able to rely on social networks and institutions to find places where safe foods are offered. Thus, a high score on the variable may also reflect that the consumer actually has implemented adequate, efficient food-buying strategies. The time factor is important: any extra effort that has to be made beyond routinised action takes time and in markets where hazards loom large people with this resource at their disposal have an advantage. Yet another resource is income; safe food may cost more money, thereby excluding low-income groups from having high confidence in the food they buy and eat. Although time and income are usually thought of as resources at the individual level, they may also be interpreted as features of national contexts. To illustrate, while individual time is largely a function of the workings of the family structure and employment institution, the households' purchase power is a matter of society's distribution of scarce resources. In general we would expect that in countries where household units are small, where survival has to be based on two or more incomes, or where poverty is widespread, the proportion of confident consumers is lower than elsewhere.

In figure 3.3 below we present the univariate distribution of the confidence variable within each national context. Three distinct patterns are discernible. First, we have the high-confidence countries of Norway and GB — in that order. Thus, looking at the food bought for one's own household, the British are no longer as distinctively different from other countries as was the case for the trust in food items in general. But still, especially when considering the relatively large gaps between rich and poor in the British society, the confidence level is nevertheless very high. Norway and GB have two important features in common. First of all, 49 – 59% of the consumers in these settings report that they have a '*high degree*' of confidence in the food they buy. Second, the proportions with '*small degree*' of trust are really modest: about 10% in both countries.

If we move to the Danish situation, it does not quite match this pattern. True, the '*small degree*' category is just as moderate as in Norway and GB. But Danish consumers are also characterised by a proportion of '*high degree*' consumers that is below 40% and a rather large '*some degree*' category. In this respect, they are closer to the second main pattern in the figure, viz. the German situation. As can be seen, the major difference compared to the three previously mentioned countries is that the proportion of consumers with '*small degree*' confidence is clearly larger. This takes place at the expense of both of the remaining categories, leaving them relatively large in magnitude but still more modest as compared to Norway and GB.

The third discernible pattern is made up by Italy and Portugal. It is characterised by relatively high proportions of consumers being confident only to a '*small degree*' or '*some degree*', coupled with an unimposing '*large degree*' category. Just as in the case of trust in foods in general, these are the setting in which we find the low-trust consumers — also when it comes to the food that is bought and taken home to one's own household.

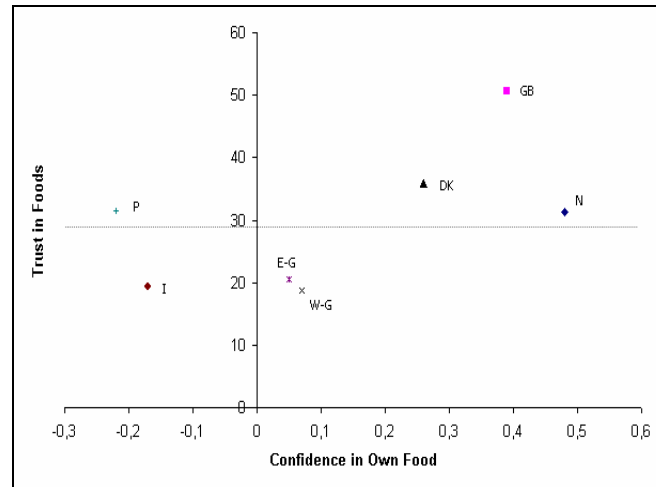
Figure 3.3: Confidence in the foods bought for one's own household. Weighted results. 2002. N: Denmark (975), W. Germany (988), E. Germany (988), GB. (1528), Italy (1950), Portugal (989), Norway (995).



The confidence variable is general in the sense that no specific foods are mentioned. On the other hand, the question is quite specific about the foods that are bought and taken home, and eventually consumed. As compared to the indices used in the previous sections of this chapter, the confidence variable represents a different trust dimension. In fact, any combination of the two is possible. There are, for instance, no logical contradictions involved if respondents are having low trust in foods in general and high confidence in the products he buys and take home. Quite the contrary, consumers living in settings where food hazards are a fact of life, should of course develop strategies that maximise one's chances to find safe foods, thereby clearing the grounds for the low trust – high confidence pattern of answers. In fact, in an ideal world we would expect the consumers' general trust in food to vary across national contexts, but not their confidence in what is bought and taken home to eat: this ought to be high everywhere.

In figure 3.4 below, we have brought together the two trust dimensions into one picture. As a measure for general trust in foods we use Index 1. As we know, it is built on all twelve food items in table 3.1. The dotted grid line marks its mean value. Confidence in one's own food is placed at the X-axis, and takes values from -1 ('small degree' of confidence) to 1 ('high degree'). Each country's combined mean values on the two variables are plotted into the diagram. Our expectations for the ideal situation is, as indicated above, that the plot will display a vertical variation pattern at the right-hand side of the plot, since all countries ought to be characterised by varied Y-values and high x-values. Unfortunately, this is not the case.

Figure 3.4: Trust Map II. 'Trust in Foods' (Index 1) by 'Confidence in Own Food'. National average scores on both variables. 2002.^{a)}



^{a)} *Index 1*: Additive index using all twelve food item dummies in table 3.1. *Confidence in own food*: 'High degree' is coded as 1, 'some degree' as 0 and 'small degree' as -1.

Starting out in the upper right-hand square of the plot, we find the three countries whose consumers on average score high on both trust dimensions. These are GB, Norway and Denmark. Although there is, as we have already seen, considerable variation within these contexts, we might say there is an overall balance on the positive side between risk assessments on foods in general and the confidence in what is actually purchased and consumed. Still, the British are on average having more trust in foods in general than in what they are able to find and put on their tables, which may reflect social divisions constraining the food purchasing process. No such gap is found among Danish consumers, where the average scores are a little above average on the Index 1 variable, and somewhere in-between 'some degree' and 'high degree' confidence in the food bought for their own households. As for the Norwegian case, it seems like the confidence in one's own food might be stronger than for trust in food in general. In as much as that holds true, consumers in this setting are somewhat critical to what is offered on the marketplace, but still quite content with what they are able to find for their own usage.

Moving to the lower right-hand square, we find the two German regions. This is a situation characterised by low trust in foods in general but above 'some degree' confidence in the products bought for one's own household. We may evaluate it as — after all positive, and much better than the other way around. For this implies that in spite of living in a context where a general impression of looming hazards rules, consumers are in fact, on average, able to secure food for themselves that is fairly trusted. Although it is impossible to assess whether the Germans are adequately distrustful or too sceptical, their criti-

cal attitude to the markets in general is anyway compensated for by a successful implementation of adequate shopping strategies.

The left-hand side of the figure denotes a more vulnerable situation, since confidence in the food one is actually buying and consuming slides towards a *'small degree'* confidence. Here we find the two Southern European countries. The difference between the two is that, whereas Portuguese consumers have an above-average trust in foods in general, the Italians are significantly below it. On the other hand, the Portuguese are on average having less trust in the food they actually buy as compared to Italian consumers. The difference is, however, modest.

Compared to trust map I in figure 3.1, the new map gives us additional insights. For when looking at trust in foods in general, Italy and the German regions were the ones classified as the low-trust areas. We questioned why Portugal steered clear of it, and found it was because the Portuguese scored above average on the fruits- and vegetable index. This time around, however, Portuguese consumers are well within the brackets of the low-trust category. The reason is that they obviously don't have adequate strategies to secure safe food on their tables. Whether this is brought about by a truly distrustable food distribution system or by unequal distributions of resources needed to get high-quality products — or both — is open to future research. Also the Italians classify as low-trust consumers — as they did when we only looked at trust in foods in general; they do not trust their markets and they do not — on average — believe they manage very well in avoiding the hazards involved. On the other hand, this time around the Germans slip away from the low-trust classification. The reason is that they on average compensate their distrust by adequate, strategic behaviour; Thus they, after all, end up having a fairly high degree of confidence in what they actually manage to buy and bring home to the household.

3.6 SUMMARY

The main findings in this chapter can be summarised as follows:

- ❖ Given the way we have measured general trust in twelve food items, British consumers are on average most confident among the seven settings considered; they have the highest score on every single item — vegetables as well as meat produce.
- ❖ As opposed to this, the Germans are and the Italians are the least trustful consumers. On eight out of twelve indicators, German consumers have the lowest average scores. On the four others — Fresh fruits and vegetables, organic beef, burgers from outlets and restaurant meals — the Italians have the lowest scores.

- ❖ The national rank-orders of foods that are considered ‘*very safe*’ to eat vary from country to country. The general tendency is that green produce is ranked highest, and that the first meat item comes third or fourth. The exception from this pattern is found in GB, where the first meat product is ranked as number six (chicken) and beef as low as number nine. Thus, in spite of high levels of trust among British consumers, there is scepticism towards meat.
- ❖ Summary indices of fruits- and vegetable items and meat products respectively once again define Italy and the two German regions as low-trust areas. On the other end of the scale, GB, Norway and Denmark are classified as high-trust countries. The Portuguese stand out in a unique position, as they are having high confidence in vegetables, but not in meat.
- ❖ Within each national context, traditional demographical variables like gender, education, age, and household composition, place of residence and occupation have rather modest impact on trust assessments. The only variable that has statistically significant effect in all countries is gender; on average women are less trustful in foods than men — *ceteris paribus*.
- ❖ We also find quite modest effects of shopping responsibilities and eating habits. This suggests that future research should look at food-procuring practices.
- ❖ Some consumers are uncertain about trust in foods, and opt for the ‘*don’t know*’ alternative. The proportions doing that are largest in Portugal with regards to trust in green produce, and in Portugal and GB concerning meat. Thus, once again we have a result that indicates continuous scepticism of meat in Britain.
- ❖ A shift from focussing on trust in foods in general to confidence in what is bought and taken home to eat, produces a somewhat different picture. Although GB is still among the high-trust countries along with Norway and perhaps Denmark, British consumers are no longer distinguished as they were with respect to trust in foods in general. The countries in which high confidence in one’s own food is least widespread, is Italy and Portugal. Consumers in the two German regions take a middle position.
- ❖ When the two aspects of trust — in foods in general and in what is bought and taken home to eat — are brought together in a graphical display, Portugal and Italy stand out as low-trust areas. The Germans are now outside the brackets of this category, due to the fact that they have reasonable confidence in their own food, and thus manage to compensate general scepticism with adequate purchasing strategies that, as an overall tendency, secure safe foods in their homes.

CHAPTER 4

PESSIMISM

4.1 INTRODUCTION

In this chapter, we shift focus to a somewhat different indicator of trust: viz. evaluations of long-term trends in the production, distribution and retailing of food produce. Individual consumers have a history as market actors and main persons in their own food-procuring activities. Equally important, they get these experiences by participating in processes that are conditioned by social and institutional parameters. In turn, these practices become sources for making assessments about the current state of affairs.

A major class of features subjected to such evaluations is institutional performance; i.e. the food system's ability to successfully satisfy the consumers' demand for safe, high-quality, healthy and reasonably priced produce in accordance with social and personal expectations as well as ongoing legal and ethical standards. Needless to say, there are many facets of institutional performance. To illustrate, as we shall see in the next chapter, the honesty and trustworthiness of key actors in the system is one such dimension subjected to continuous assessments. In the present chapter, however, we look at the impact of another aspect of the evaluation of institutional performance, viz. the degrees to which consumers feel that the long-term developments are deteriorating.

We start out by looking at pessimism with respect to five food issues: prices, taste and quality, farming methods, nutrition and safety. We discuss observed proportions of pessimistic consumers as well as rank orders of issues subjected to negative evaluations within each of the seven settings. Next, we move on from comparing countries onto relating the pessimism phenomenon to individual-level variables. In the final sections of the chapter we look at the impact of pessimistic attitudes on trust in foods. In these analyses, we use two of the trust indicators from chapter 3 as dependent variables.

In general, we anticipate that

- 1) *Levels of pessimism are higher in countries ridden by unsafe foods;*
- 2) *Levels of pessimism vary across social divisions within each country;*
- 3) *High levels of pessimism typically lead to reduced levels of trust.*

4.2 ARE THINGS DETERIORATING?

A number of issues may potentially influence consumers' assessments about trust in food. The analyses to follow are based on the following measurement tool:

“As a general impression, do you think the food today has improved, is more or less the same or has become worse, compared to twenty years ago regarding....

- ❖ the taste and quality of food;
- ❖ reasonableness of food prices;
- ❖ food safety;
- ❖ healthy and nutritious food;
- ❖ farming methods;

[Options]: Improved/ the same/ worse/ don't know.”

The five issues are general in two ways. Firstly, they are not about any particular foods, but simply *‘food’* as such. Secondly, they are linked to a twenty-year perspective. But rather than focussing on a particular period of time, the intention of posing these questions is to get the respondents' assessments about the long-term, overall developments in the food sector. The fact that even the young cohorts seem to avoid the “don't know” option — obviously, many interviewees have not lived long enough to be able to survey a twenty-year period — is but one indication that the data are interpreted along these lines. But high response rates are primarily secured by instructing young informants to assess what they *think* is the case, if they feel disintitiled to answer.

Moreover, no matter how general the five issues are, they are still crucial aspects of trust since sentiments of this kind are potentially capable of influencing behaviour as well as attitudes and feelings of well-being when dealing with food and food-related activities. Although we are not taking it as far as certain economic studies, where assessments about general developments and expectations for the future are often used as indicators for predicting consumers' market behaviour, we expect opinions about the five issues to impact, at least potentially, various types of trust — in particular people's attitude towards particular foods and confidence in the food they bring home to eat.

But before we get to that, we shall have to address the univariate distributions of the survey questions. Looking at the sample as a whole, they are all typically displaying relatively large proportions of respondents claiming that the development has either led to improvements or setbacks. For some of the variables, these proportions are approximately similar in size, whereas on others the support for one of the extremes is definitely larger. The in-between category “the same” is typically chosen by $\frac{1}{4} - \frac{1}{3}$ of the respon-

Table 4.1: Percentage claiming that ... have become worse in the various countries. Weighted results. N: Denmark (1001), W. Germany (1000), E. Germany (1000), GB. (1566), Italy (2006), Portugal (1000), Norway (1004).^{a)}

	Denmark	Norway	W. Germany	E. Germany	GB.	Italy	Portugal	Mean	Max – Min
Prices	24	23	63	75	29	68	84	52	61
Taste/ Quality	33	26	33	27	26	60	67	39	41
Farming met.	33	23	31	25	19	48	37	31	29
Nutrition	22	24	26	16	13	46	40	27	33
Safety	13	28	28	25	12	39	33	25	27

^{a)} All five variables are dummies, coded 1 for 'worse' and 0 otherwise ('the same', 'improved', 'don't know'). Cf. Q14 a) – e). The min-max column simply gives the difference between the highest and lowest percentage values for the respective variables. *The mean*: Calculated as the mean of the country averages.

dents. There are, however, distinct differences across national contexts. The “don't know” option, which we basically do not consider to be part of the 'improved – worse' continuum — is supported by minor proportions of respondents — typically by some 3% – 8% in each of the countries.

Since the focus in this chapter is on pessimism, the table 4.1 above only gives the proportions claiming that the developments have led to setbacks with regards to the five food issues.⁵⁹ Looking at the means of the country averages, we see that the issue most commonly associated with negative sentiments is 'prices': an overall mean of 52% feel that the prices of today are less reasonable than before. A variety of circumstances may lead to such a conclusion, among which “less value for money” perhaps is the most general and obvious one. But in as much as that is the basis for choosing the “worse” category, a wide range of secondary reasons come into consideration. For instance, changes in quality as well as price levels could provide for adequate justifications of the attitude. Negative assessments may also be grounded on weak progress in wages and losses of sources of income. Socio-economic trends causing scarcity and deprivation in parts of the population may, in other words, account for high levels of discontentment with regards to prices.

⁵⁹ In this chapter we focus on possible reasons why a certain proportion of a population believe that conditions have changed for the worse. Similar, but opposite, arguments could of course have been presented for why other parts of the same population have the opposite opinion — i.e. think that the food situation has improved.

Furthermore, changes are definitely a matter of speed. If, for instance, prices escalate over short time spans, people may start to feel uncertain as to what the future may bring, even though job opportunities and wages remain stable or even improve during the same period. As a result, prices are likely to become a hot topic at the individual as well as the political level. This is perhaps even more likely to happen whenever changes reflected in escalating price tags are accompanied by large and locally visible movements towards internationalisation and integration into a politically and economically unified Europe.

Looking at the conditioned proportions in table 4.1, a distinct division between the six countries appears. The percentages claiming that prices have gone to the worse are higher than 60% in Portugal, Italy and the German regions and below 30% in Norway, Denmark and GB. The difference between Portugal, where 84% of the consumers are worried about the price development, and Norway, where only 23% hold the same opinion, is 61 percentage points. The keyword to understand these results is most likely “turbulence”; whereas the three most pessimistic countries recently introduced the Euro, the three others have not. A new currency may lead to uncertainty and a feeling of rising prices among consumers. Beyond that, and prior to the Euro, Portugal and East Germany have been marked by substantial structural changes. As for Norway, GB and Denmark, these are areas predominantly characterised by “business as usual”. Norway has even adapted to European price levels and recently implemented a reform leading to a reduction in taxation on foods and consequently to lower prices in the shops. In GB — and probably in Denmark as well — it is primarily competitive market structures that are responsible for the continuity of low price profiles, over time succeeding to match or surpass those of other nearby countries.

Now turning to assessments of taste and quality, an overall average of 39% claims that this aspect of food has gone to the worse. Again, the reasons why are complex. For a start, lower quality assessments may be associated with modern and standardised mass production that aims at reducing costs and compete on prices. Furthermore, a feeling of lower quality may reflect specific views on taste. It could also refer to the anonymity of modern food products. Yet another possibility is that consumers fear that modern production and processing methods have impaired the healthiness of food products, or otherwise led to unwanted changes in quality. In some layers of the population, even economic deprivation could lead to evaluating taste and quality as having gone to the worse. For in as much as larger proportions of the population are denied access to produce that before were part of their diets, thereby being left with low-price substitutes, the general impression of the long-term developments would naturally be on the negative side.

Looking at table 4.1, the taste and quality issue does not generate as distinct divisions between the countries as did prices. Still, Portugal and Italy stand out as national contexts in which the majority of the consumers are having negative feelings about the developments; in excess of 60% claim that quality and taste have become worse over the years. In the five other countries, less than a third of the consumers share the same opin-

ion. A plausible explanation for the result is that the industrialisation of food production has gained speed in Portugal and Italy rather recently, thereby creating an immediate feeling of great changes taking place followed by a corresponding loss of old ways of dealing with food and preparing meals. In the Northern countries, on the other hand, the modernisation process started earlier and has reached a level of sophistication that most consumers have been accustomed to. In fact, in countries like Norway and GB, more than 40% feel that both taste and quality have improved over the years.⁶⁰

The third issue reported in table 4.1 is farming methods, which was included in the survey as an indicator of ethics. Incidents about mistreatment of animals have reached the media headlines time and again with increasing frequency over the years. Typical illustrations include topics such as the transportation of animals, causes and mechanisms behind the spread of BSE, cloning, life conditions for chicken subjected to mass production of meat and eggs, genetically engineered foods and the use of chemicals in the production of fruits and vegetables. These are all worries with a common denominator; viz. that the highly competitive situation in the food production sector has some distinct, identifiable negative spin-offs. For consumers, they may represent a constant conflict between the need to make a profit with other crucial standards like animal welfare and food safety. The growing awareness of the relationship between the farmers' production conditions and food supply may therefore influence the consumers' degrees of trust and distrust in what is offered on the marketplace. The impact is probably higher during times of great change.

As we see in table 4.1, about one third of the consumers in the six countries feel that farming methods have gone to the worse. There are, however, important differences across the national contexts. This time around, we see the contours of three distinct situations. The first is made up by Italy alone, where nearly half of the consumers report that farming methods have deteriorated over the years. The Portuguese are now located in a middle position along with Denmark and West Germany, where the proportion feeling that the situation has worsened is at or slightly higher than the overall mean for the whole sample. In the remaining countries — GB, Norway and East Germany — less than a quarter of the consumers feel that the long-term developments in farming methods are negative. This is especially the case in GB — a tendency that is indeed emphasised by the fact that more than 50% of the British claiming that improvements have taken place.⁶¹ Whereas the results for GB may be tentatively related to recent institutional change, many East Germans probably feel that the fall of East Block socialism after all has led to a more reliable production system. This, in turn, may in part explain why the East and West Germans are — as an exception — separated on this issue. Still, let us

⁶⁰ This is not shown in table 4.1.

⁶¹ This is not shown in table 4.1

notice that the great changes that recently took place in this region obviously resulted in a large disparity of opinions; for unlike GB and Norway where the “improved” categories are high and “the same” option is only modestly supported, the East Germans spread out rather evenly in these two brackets.

The next food issue is nutrition, which an overall percentage of 28 feels has worsened over the years. The most obvious reasons for holding such a view are scepticism towards the increasing industrialisation of foods and a corresponding change in food cultures and eating habits. For instance, the contemporary food supply offers a wide range of fast-food and manufactured food products, all of which reflect habits that are convenient adaptations to individualistic lifestyles where every household member is likely to end up short of time. Also, industrialised foods facilitate the spread of quick in-between meals to take one through a stressful day. A vital feature of manufactured food products is that the consumer really does not know what has gone into it and how it had been produced, which provide a breeding ground for worries. Moreover, the nutrition value of many foods has been proven low, increasing the probability of nutritional problems like heart disease, obesity and caries. Still, we should not be blind to the fact that nutrition also has a distributive aspect. It is possible to choose healthy food provided the knowledge and resources are there. Malnutrition is more often than not found among people from the lower social classes where economic resources and cultural capital are typically scarce. Thus, beyond measuring general scepticism towards the food production system we would expect the nutrition variable to somehow reflect social divisions — perhaps as a secondary tendency.

Again consulting table 4.1, as indicated by the country average we notice that about 27% feel that the health and nutrition aspect of food has worsened over the years. As far as the differences between the countries are concerned, three situations are discernible. Once more, Italy appears as a country characterised by high proportions of sceptical consumers. Together with the Portuguese they form contexts in which 40% – 46% of the population perceives the development as being predominantly negative with regards to nutrition. In Denmark, Norway and West Germany the corresponding percentages are 22% – 26%. The third situation is made up by GB and East Germany, where the share of the population holding the view are 13% – 15%. Again, we believe that the transition from socialism to market economy may in part account for the different proportions found in the Eastern and Western regions of Germany, respectively.

The final food issue is safety — perhaps the most media-profiled of the five topics in table 4.1 when it comes to headlines and hard news coverage. If consumers have noticed anything at all about food in the public discourse it must be that it might be unsafe and that the sources of such hazards are multiple. Given the immense focus on perceived risks — real or not — associated with the use of pesticides, GM-foods, BSE, mouth and foot disease, salmonella and lack of hygiene at production facilities, we would expect that the proportions feeling that the developments are characterised by negative trends

are high for this issue, perhaps higher than for any of the other four listed in table 4.1. Obviously, this is not so. The overall country averages indicate that about 25% of the consumers in these areas feel that safety has deteriorated — undoubtedly high but still lowest of the five issues. However, we do find more or less the same pattern as before with respect to differences across national contexts. In Italy and Portugal, more than a third of the consumers give negative assessments of the long-term developments. The middle position is taken by the two German regions and Norway, where in excess of a quarter of the population shares this opinion. In Denmark and GB the corresponding proportions are as low as 12% – 13%.

Whereas the result for Britain is well in line with the modest spread of scepticism recorded for the other issues and the widespread confidence in foods registered in the previous chapter, the difference between the two Scandinavian countries calls for attention. Both countries are characterised by elaborated control systems and regulations that are largely enforced by governmental institutions. The difference is, however, that a food scandal dominated the media in Norway at the time of the survey. This, of course, told the Norwegians that safety regulations are not all that efficient. The Danish, on their side, have had a number of incidents of contested foods, may be perceived as having developed measures to handle them as they materialise. This, we believe, account for the fact that the proportions of sceptics are higher in Norway than Denmark — and higher than could be expected from previous research.⁶²

As a general impression, then, we once again end up with Portugal and Italy as the low-trust countries in our survey. At the positive side we once more find the two Scandinavian countries and GB, where the spread of negative assessments are least common. This leaves us with the German regions positioned in the middle. These results are generally in line with the patterns obtained from the trust analysis in the previous chapter. But once again we have to point out that the most difficult case to explain is Italy. For whereas the institutional situation and the recent, rapid changes in Portugal make the outcomes on the trust and pessimism variables in line with our expectations, Italy has been part of the European integration process for a great number of years. Forthcoming reports on institutional conditions and change within each of the national contexts shall have to focus on the obvious need for explanatory substance.

⁶² Cf. Berg (2000: 49 – 52).

Table 4.2: National rank-orders of food issues that are considered to be 'worse' now than twenty years ago. The ranking is based on the results in table 4.1.

Rank	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
1	Taste/ quality	Safety	Prices	Prices	Prices	Prices	Prices
2	Farming	Taste/ quality	Taste/ quality	Taste/ quality	Taste/ quality	Taste/ quality	Taste/ quality
3	Prices	Nutrition	Farming	Safety	Farming	Farming	Nutrition
4	Nutrition	Farming	Safety	Farming	Nutrition	Nutrition	Farming
5	Safety	Prices	Nutrition	Nutrition	Safety	Safety	Safety

4.2.1 NATIONAL RANK-ORDERS

A shift from proportions to national rank-orders of negatively assessed food issues shed additional light on the phenomenon. The qualitative display in table 4.2 above is obtained from the results in table 4.1. For each geographical area, the issues are ordered from 1 to 5 according to the principle that higher proportions of consumers feeling that the developments have led to deterioration give higher rank. As we see, in all countries but Norway and Denmark, 'prices' and 'taste and quality' are ranked highest and in that order. As for Denmark, the two issues comes as number one and three, with 'taste and quality' at the top. Moreover, in five of the six countries, 'farming methods' appears among the top-three issues, sometimes ranked second, sometimes third. The general impression is, in other words, that the national rank-orders are very similar indeed.

Still, important differences across national contexts should be noticed. For a start, it is important to underline that a wide variety of events and combinations of mechanisms may produce similar output patterns. Also, the proportions of consumers constituting a given pattern may vary depending on the contexts in which they emerge. Consider for instance the top-three ranking in GB and Italy. They are identical, but as we have seen the magnitude of support for pessimism is not, as the proportions of consumers in each category are far more modest in the former as compared to the latter country. Also, due to the fact that they are culturally, socially and economically different, it is likely that the reasons why the rankings come out identical in the two settings may vary as well, although our data do not permit us to pursue that idea.

The perhaps most striking feature in table 4.2 is that price concerns are ranked among the top-three in six out of seven settings, and as number one in five of them. For from a theoretical as well as a common sense point of view it can be argued that safety concerns should dominate the top rows of the table. After all, what is the point of having access to

cheap food if it is unsafe and constitute a threat to one's health? Still, safety is typically ranked last or second last. Of course, as indicated above, assessments on 'value for money' may include notions of quality, nutrition and health hazards. But it seems unlikely that this can account for the systematic difference in the rank-ordering of 'prices' and 'safety'. A better explanation emerges from comparing GB with Norway. As for the former, it is tempting to suggest that due to the handling of successive food crises in recent years, British consumers simply consider the safety problem improved or at least under control.⁶³ If we look at the Norwegian setting, it is normally characterised by high degrees of trust in public institutions and control systems;⁶⁴ safety is, put boldly, generally taken for granted, and should not give rise to extensive negative assessments like those we observe in tables 4.1 and 4.2. But at the time of the survey the setting was also marked by the presence of a food crisis. This is probably why an excessive proportion of respondents feel that safety has become worse in spite of initially high trust levels. Moreover, in the face of a food crisis price concerns naturally fade. In as much as this makes sense, 'safety' appears as a prime concern underlying many of the other issues, and consequently as a potential to be triggered whenever a crisis occurs.

The explanation is further supported when we take into consideration that the food crisis in Norway was, after all, rather negligible as compared to what British consumers have gone through. Pushed to extremes, at one point the situation in Britain appeared to be as bad as it could possibly be. So when a major crisis like BSE is attended to, people are almost bound to see it as an improvement. As for Norway, the opposite is true; given the high trust that Norwegian consumers generally put in the food system, even a small crisis tend to leave them with a feeling of deterioration. This means that we must be careful with how the results are interpreted; people have a short memory, and their answers in surveys are to a certain degree conditioned by the situation at the time of the interview. The issues variables are measures of "sentiments of the day" just as much as they reflect rational, well considered assessments about long-term trends.

According to the same kind of reasoning, the rank-orders in table 4.2 are explicable in terms of a notion of what happens during 'normal times'. The results indicate that in the absence of crises, people tacitly acknowledge the hazards of food and become more sensitive to other issues than safety. In that respect, it makes sense that price concerns are typically ranked highest among the negatively assessed issues. After all, food is a major expenditure in any household. Also, balancing the household budget is a matter of allocating scarce resources to the benefit of each of the members and the unit as a whole. As

⁶³ In our survey, 67% choose the 'improved' option when the safety issue is raised, whereas 'the same' and 'worse' alternatives are supported by 18% and 12% respectively. An alternative explanation is that food scandals tend to be forgotten once the coverage in the news media tails off, but it is hard to imagine that to be the case with problems like BSE.

⁶⁴ Cf. Listhaug & Wiberg (1995).

is sometimes pointed out in studies on household economy, food is essentially a variable expense item and as such qualitatively different from fixed expenditures such as rent, mortgages, electricity and water supply. In fact, food is among the few remaining variable expenses left for the household to balance the budget in case of temporary lack of liquidity, unexpected events, loss of income, recession, accidents and so forth.⁶⁵ The implication is that food prices become a recurrent topic and a major concern in everyday life. In such a perspective ‘*value for money*’ appears as fundamentally related to the economic situation of the household. This may at least in part account for the symptomatic fact that it is the five countries with the largest proportions of unemployed and low-paid employees that rank the price issue as number one.

Finally, the worries over prices could also be interpreted as a more political statement; some consumers may indeed be critical to high profits of powerful actors in the food chain.

4.2.2 THE PESSIMISM INDEX

Just like the food items in chapter 3, the five food issues lend themselves to the construction of an additive index. Using the pessimism variables in table 4.1 as the point of departure, the five issue dummies are added together, then divided by the number of issues and multiplied by 100. In this way, we get a pessimism index that varies between 0 and 100. Since the five items that goes into it are qualitatively different, we have to take care when interpreting it. The pessimism index is basically a summary measure whose point values simply indicate the number of issues that consumers feel have gone to the worse over the years. Since it varies between 0 and 100, it can also be interpreted in terms of percentages. To illustrate, in table 4.3 below the overall country mean for the index denotes that in these areas 34.8% of the five issues are considered to have deteriorated over the last twenty years — i.e. close to two topics. In spite of the qualitative dissimilarities between the items that are added together to form the index, the reliability is acceptable, although the alpha value is a little below .7.

In the regression model presented in table 4.3, the pessimism index is used as dependent and the country dummies as independent variables. East Germany is the baseline context to which the other countries are compared. As can be seen, the mean value for East German consumers is 33.7 index points. The West German average is slightly higher, but not statistically different from that of the Eastern region. Thus, the German scores both indicate that close to two issues are associated with negative developments. Since the result is not far from the overall mean for the sample as a whole, the Germans are positioned in the centre of the pessimism distribution. It follows that the remaining five

⁶⁵ Cf. Borgeraas & Øybø (2003).

Table 4.3: The Pessimism Index by Countries. Weighted estimates. Linear Regression. 2002.^{a)}

	Pessimistic Assertions about Food Issues
Constant (i.e. East Germany)	33.7***
Denmark	-8.6***
Norway	-9.0***
West Germany	2.4
Great Britain	-14.1***
Italy	18.5***
Portugal	18.7***
N	8571
Adj. R ²	.182
Overall Index Mean	34.1
No. Items in Index	5
Cronbach's Alpha	.6631

*** = p<.001 ** = p<.01 * = p<.05

^{a)} The index is based on the dummy variables in table 4.1. In step one, all food issue items are added up to form a new variable. In a second step, it is divided by its number of items, and then multiplied by 100. As a result, we get an index that varies between 0 and 100. *Overall index mean*: Calculated as the mean of the predicted average scores for each geographical area.

countries part from this in both directions. The statistical tests show that all of these contexts have results that are statistically different from the baseline country.

So, on the one hand we can identify national settings in which pessimism is not as widespread as in the German regions. These are Denmark, Norway and GB. Especially the latter country is marked by a modest support for the view that things have become worse; on average British consumers feel that 19.6% of the issues — i.e. about one out of five — have been subjected to a downward trend.⁶⁶ On the other hand, Italy and Portugal are both marked by a significantly higher spread of pessimism as compared to the German regions. In these contexts, the consumers believe that in excess of 52% of the issues have gone to the worse.⁶⁷ In passing, let us note the trivial point that since the co-

⁶⁶ The calculation is as follows: [value for East Germany] plus [value for GB] = [33.7] + [-14.1] = 19.6 index points. Since there is only one dimension included at the independent side of the equation, and this dimension is made up by dummies, the result is identical to the conditioned mean value for GB.

⁶⁷ The calculations are as follows: [value for East Germany] plus [value for Italy] = [33.7] + [18.5] = 52.2 index points. The corresponding value for Portugal is of course [33.7] + [18.7] = 52.4.

efficients for these countries are practically identical — 18.5 and 18.7 index points respectively — the amount of pessimism are not statistically different from one another.

Besides giving us the opportunity to test the differences between the seven national settings, we have also obtained a generalised picture of pessimism that by and large matches the one identified for trust. Perhaps with a small exception for the German regions, which this time around is thoroughly brought to the centre of the distribution, the countries with high proportions of trustful consumers are the same as those with low proportions of pessimistic persons, and vice versa.

Finally, let us notice that once again the country variables have strong explanatory power; the adjusted R-square indicates that they explain 18.2% of the variation in the pessimism index. This is in line with what we found for the trust indexes in chapter 3.

4.3 THE IMPACT OF SOCIAL AFFILIATION

In this section we look at the impact of social divisions. Just as conceptions of trust, assertions about long-term trends emerge from social processes. As such, the rising of negative perceptions about the developments within the food system is likely to be subjected to socially stratifying factors. Whether or not they also condition distributions of pessimism is open to empirical analysis. It is to this task that we now turn.

We proceed along the same lines as we did in the trust analysis in chapter 3.3. It means that we anticipate that traditional demographic variables and social commitments are having an impact on the formation of pessimism, but to varying degrees across national settings. Therefore, we develop identical models for each of the country sub-samples. Moreover, in view of the general model for this report presented in the introductory chapter, we want to stress that any result in line with these expectations does not preclude effects from the institutional, organisational and cultural levels. Quite the contrary, we expect to find effects from aggregates like countries as well as individual-level variables. The analysis is presented in table 4.4 below.

Table 4.4: The Impact of Social Affiliation in Six Countries. Dependent variable: Pessimism. Weighted estimates. Linear Regression. Unstandardised coefficients. 2002.

Dimensions	Variables	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
	Constant	34.2***	53.2***	39.0***	33.8***	17.5**	71.6***	70.0***
<u>Background:</u>	Gender	3.0 [□]	4.7**	8.2***	3.3 [□]	0.008	7.0***	7.3***
	High Education	-1.6	2.3	-2.0	-1.1	0.8	-5.6***	-2.0
	Age	-0.01	-0.1 [□]	-0.06	-0.1	0.2***	0.1	-0.07
<u>Househ. Comp.:</u>	No. Persons	2.6*	1.0	0.2	1.6	0.09	-0.05	-0.6
	No. Pers. u/18	-0.7	-1.6	0.4	-3.1*	-1.0	1.2	1.0
<u>Location:</u>	Rural	-2.1	-2.9	-2.8	-1.1	0.8	-3.3*	-2.4
<u>Occupation:</u>	Students	-6.1 [□]	-4.8	-3.0	-6.8	2.5	-4.6	-8.0*
	Pensioners	2.3	1.5	-5.2 [□]	-0.8	-0.5	-3.1	6.8*
	Home Workers	-2.1	-8.2	-3.1	-4.5	1.2	1.2	9.4**
	Unemployed	2.4	-13.4*	7.5	-3.8	1.9	3.2	6.6
<u>Responsibilities:</u>	Buys food occ.	-1.2	-15.5***	-2.0	1.8	-9.6**	-4.8*	-4.4
	Buys food reg.	0.7	-13.6**	-1.7	6.0	-6.8*	-8.1***	-0.8
Eating Habits	Eat Vegetables	-2.1 [□]	-0.9	1.0	0.3	1.3	-2.2*	-5.0***
	Eat Meat	-1.2	-2.1	-1.0	-0.6	-1.4*	-2.1*	1.5
	N	997	976	930	954	1382	2000	987
	Adj. R ²	.006	.021	.023	.006	.020	.027	.052
Index Means		25,1	24,7	36,1	33,7	19,6	52,2	52,4
Cronb's Alpha		.5648	.5850	.5645	.5222	.5979	.6843	.5976

*** = p<.001 ** = p<.01 * = p<.05 [□] = p<.10

Variable definitions: *Gender:* M = 0, F = 1; *High Education:* University low levels or higher = 1 Other = 0; *Age:* in years.; *Rural:* Living in the countryside/ rural district = 1 Other = 0; *Buys food occasionally & Buys food regularly:* Yes = 1 No = 0 (Reference category is 'Never buys food'); *Eating Habits:* the 'Vegetables' and 'Meat' variables are both continuous, varying from Never = 1 to Daily = 5. *Pessimism:* Cf table 4.3.

Using the pessimism index as dependent variable, the general impression is — once again — that demographic variables and social commitments as measured by certain activities and responsibilities only have modest impacts on the distribution of pessimistic attitudes. Just as we found for trust, the explained variances are low and most coefficients indicate that the differences in pessimistic assessments across social groups are

minor. Also, the model fit is quite discouraging for Denmark and East Germany. In fact, in these cases the adjusted R-squares are close to zero.⁶⁸ These results are, however, in line with the analyses in chapter 3.3; again, the high degree of egalitarianism among Danish consumers is apparent.

As for the trust phenomenon, we remember that gender has — *ceteris paribus* — a distinct effect in all countries but one, women appearing as less trustful than men in all those settings. The gender effect is, however, not as striking with respect to pessimism, and not statistically significant in GB, and only so at a .10 level in Denmark and East Germany. The association is significant but modest in Norway, whereas the gender effect is between 7.0 – 8.2 index points in Italy, Portugal and West Germany. In these countries, women are giving negative assessments in relation to 7% – 8.2% more issues than are men. The findings are consistent with what we obtained for trust; women are both less trusting and more pessimistic about long-term trends than men are. Also, this time around Norwegian men do not appear to be as special as they did with respect to trust; large differences between the genders are more in line with what is expected for countries like Italy and Portugal where domestic labour divisions between men and women are more distinct than in Norway where the genders are on more equal terms.⁶⁹

As for the two other background variables that are included in the analysis — high education and age — their effects are statistically insignificant in most of the six countries. Still, we notice that high education is having a significant effect in Italy, where the highly educated on average consider 5.6% fewer issues as subjected to negative developments over the years. The age variable is apparently working differently across national contexts. In GB the effect is positive; pessimism is more frequently reported by people in the older age groups. It fits the picture of old people remembering the good old days as providing cheap, safe, high-quality, nutritious and well-produced the foods were then. In Norway, however, the age effect is negative; in other words, in this setting are older consumers prone to be less critical about the developments. The tendency may reflect older generations' confidence in progress and the capabilities of modern institutions. The effect is only statistically significant on a .10 level, though.

As far as household composition is concerned, neither number of persons residing in it nor the presence of members under the age of eighteen seems to be important for the distribution of pessimism in any of the national contexts but Denmark and East Germany. In the former, persons living in larger household units are more pessimistic than

⁶⁸ The F-statistics for the model in the Danish and East German settings are below the critical values and thus well within what is expected for analyses performed on samples drawn from populations with no relationships between demographical variables and pessimism. We are just as well off with the national averages as we are with predictions based on these analyses.

⁶⁹ Cf. chapter 3.3 and table 3.4.

others, while in the latter persons living in household with persons under 18 years of age report lower levels of pessimism. But the model fit for these two countries are poor, and the effects are in any case modest. Looking at where the households are located, rural families in Italy are slightly less prone to be pessimistic as compared to families living in urban and semi-urban areas. The effect is statistically significant at $p < .05$, and may reflect differences in distribution systems as well as cultural disparities between urban and rural areas.

Being positioned at the margins of the labour market has some impact on the perception of long-term trends in four out of six countries. For a start, in Denmark and Portugal students are on average less pessimistic than employees in the public and private sectors — *ceteris paribus*. These effects are statistically significant at $p < .10$ and $p < .05$ respectively. The impact of the pensioner position, however, is ambiguous since it is associated with reduced degrees of pessimism in West Germany, and vice versa in Portugal. It is hard to think of why significant effects for this variable is not found elsewhere — in either direction — since the impact of being a pensioner is controlled for age. But we may tentatively think of these findings in terms of stability vs. social upheavals that — for some reason or another — makes a difference in these two countries only. It could for instance mean that while West German pensioners view the post-war developments as well planned, steady-going and accompanied by increases in welfare and availability of a wide range of foods, senior citizens of Portugal witness a society that is currently characterised by rapid, fundamental changes with insecurity as the perceived output. Transferring the idea to other categories, the same characteristic may also in part be the reason why Portuguese home workers — predominantly housewives — on average consider 9.4% more issues to have gone to the worse over the last twenty years.

The last of the marginalised positions included in the analysis is unemployment, which only seems to be of importance in Norway. In this setting, job seekers are on average expressing pessimism with regards to 13.4% fewer issues than are the employed. Obviously, Norwegian unemployed are different from job seekers elsewhere in some decisive respect — to be more precise: in ways that are not already accounted for by the model — but it is hard to come up with a suggestion on what that quality might be. Also, looking at the other countries, the coefficients indicate that the impact of unemployment might just as well be in the opposite direction of what is found for Norway. We simply have to accept the result for now, and leave it open to further research. Still, a part of the explanation may be related to the fact that unemployment rates in Norway are lower than in other countries — which suggests that Norwegian jobseekers as a group are dominated by characteristics that are not so prominent in other countries.

Turning to food related activities and habits we notice that responsibility for buying food occasionally or regularly has an impact on pessimism in Norway, GB and Italy. Moreover, the results are consistently pointing in the same direction in all national contexts; those responsible for food purchases are as a group less prone to evaluate the issues as

having deteriorated. The effects vary from expressing pessimism with regards to 15.5% to 4.8% fewer issues. Thus, the largest coefficient indicates an average reduction corresponding to 1.5 issues — which is quite substantial in a country like Norway where the overall national average is pessimism associated with 2.5 themes. This time around, the impact of food buying is in line with our argument in section 3.3 where time investments in particular activities was expected to lead to better skills and raise one's trust in everyday assessments and personal choice. In as much as that makes sense, modest tendencies towards negative assessments are as expected.

As for eating habits, statistically significant results are observed for Denmark, GB, Italy and Portugal. In general, the more often a person eats vegetables or meat, the fewer issues are found to be subjected to negative developments — *ceteris paribus*. The largest effect is registered for Portuguese vegetable eaters.

4.4 CAN PESSIMISM EXPLAIN TRUST LEVELS?

Given the proxies we use for trust and pessimistic attitudes respectively, statistical measures indicate a modest relationship between the variables. For instance, the correlation between '*trust in foods*' (index 1) and '*pessimism*' is $-.278$.⁷⁰ A similar result is obtained for the association between '*confidence in own food*' and '*pessimism*'.⁷¹ Since correlation coefficients only reflect the degree to which two variables are linearly connected, the relatively modest associations may be due to non-linearity. Whatever the case, the results generally suggest that high levels of trust are associated with low levels of negative assessments of long-term trends, and vice versa.

In the analyses that follows, '*trust in foods*' and '*confidence in own food*' are successively used as dependent variables. We generally expect that large amounts of pessimism over food issues influence the degree to which people trust the products available in the marketplace. We also anticipate that pessimism eventually will impact on one's confidence in the particular food that is bought and taken home for consumption.

⁷⁰ Pearson's correlation, $p < .01$. Cf. table 3.3.

⁷¹ The Pearson's correlation coefficient for the association between '*confidence in the food one buys*' (cf. figure 3.3) and '*pessimism*' is $-.295$, which is significant at $p < .01$.

Table 4.5: Trust in Foods (Index 1) by Pessimism. Weighted estimates. Linear Regression. Unstandardised coefficients. 2002.

Food Issues	Variables	Denmark	Norway	W. Germany	E. Germany	GB.	Italy	Portugal
	Constant	35.9***	32.4***	25.2***	21.9***	46.1***	22.2***	36.9***
Prices:	Worse	-2.2	-0.9	-0.8	-1.7	-0.03	-0.5	-0.6
	Improved	1.1	2.0	2.5	-4.3	5.3**	2.3	5.4
	Don't know	-0.6	0.8	-9.0*	-4.4	-2.3	-0.7	4.2
Quality & Taste:	Worse	-2.2	-3.0	-5.5***	-3.2*	-2.7	0.5	-11.3***
	Improved	-3.9	-0.9	2.8 [□]	2.0	0.4	6.2***	-7.3**
	Don't know	-3.0	-3.6	-3.8	2.5	-3.8	0.8	-9.0*
Farming:	Worse	-1.3	1.4	-5.7***	-0.8	-3.5	-3.4 [□]	-3.0
	Improved	0.6	5.6*	-1.0	2.9 [□]	0.6	0.6	5.3*
	Don't know	-2.3	0.5	0.1	1.2	-2.8	-1.0	-0.8
Nutrition:	Worse	-4.8	-3.4	-2.6	-3.4 [□]	-4.9 [□]	-3.0*	-2.1
	Improved	1.5	-1.5	-0.9	-0.2	2.1	-0.2	2.1
	Don't know	2.2	0.08	-2.2	-6.3	7.8	-6.7***	4.7
Safety	Worse	0.8	-6.1*	-4.3*	-4.3*	1.4	-1.9	2.4
	Improved	3.9	-0.09	-0.7	4.4**	4.1*	0.8	3.8 [□]
	Don't know	2.4	-4.7	-1.3	-6.6*	6.6	-1.1	2.0
	N	1000	1004	1000	1000	1551	2006	1000
	Adj. R ²	.003	.024	.091	.085	.033	.052	.097
Index Means		35.8	31.2	18.8	20.7	50.8	19.4	31.5
Cronb's Alpha		.8830	.8562	.7413	.7374	.8410	.7863	.7568

*** = p<.001 ** = p<.01 * = p<.05 [□] = p<.10

a) **Variable definitions:** Each of the independent variables is a food issue dimension made up by three dummies, each of which corresponds to the answering options in the survey. The omitted category is 'the same'. Index 1 is a variable summing up the 'very safe' categories on twelve food items. Cf. table 3.3 for a precise definition. **Index means:** Calculated as the mean of the predicted average scores for each geographical area. Cf. table 3.3.

4.4.1 TRUST IN FOODS (INDEX 1)

We start out by looking at the relationship between 'trust in food items' (index 1) and 'pessimism'. As independent variables we shall use a detailed specification of the pessimism dimension. This is needed to account for the possibility that the five issues included in the index may contribute differently to the constitution of trust in food items

— within a given national context as well as across national settings. Since the pessimism index is a summary measure, it may tone down or even conceal the workings of the indicators that make up the variable. Therefore, to get beyond the mere anticipation about a negative relationship between the two trust dimensions, we shall break up the index into its constituent parts, and instead use a series of dummy representations as independent variables. This also solves any problems caused by possible non-linear relationships between the ‘*trust in foods*’ and ‘*pessimism*’ indices.

As we remember from section 4.2, each of the five survey questions has four alternative, pre-coded answers. We shall proceed by utilising the full information recorded for these variables, representing each of the five issues by dummies for the ‘*worse*’, ‘*improved*’ and ‘*don’t know*’ options. As a consequence, the omitted category is going to be ‘*the same*’ alternative, which serves as the baseline to which the effects of the other three are compared. Identical regressions are run for each sub-sample. The resulting analyses are reported in table 4.5 above.

We generally expect a negative relationship between the ‘*worse*’ categories and trust in foods; people who consider an issue to have gone to the worse should also typically score lower on trust compared to those who believe the same issue has remained ‘*the same*’ over the years. A reason for that is that it often feels natural to transfer sentiments about general trends onto perceptions of the particular items that are part of these developments. A quick inspection of the results in table 4.5 indicates consistency in that respect; all statistically significant ‘*worse*’-coefficients have negative signs. The largest effect is observed for Portuguese consumers who feel that quality and taste have deteriorated: in this group, the average trust level is 11.3 index points below those who believe that taste and quality is about the same as it used to be.

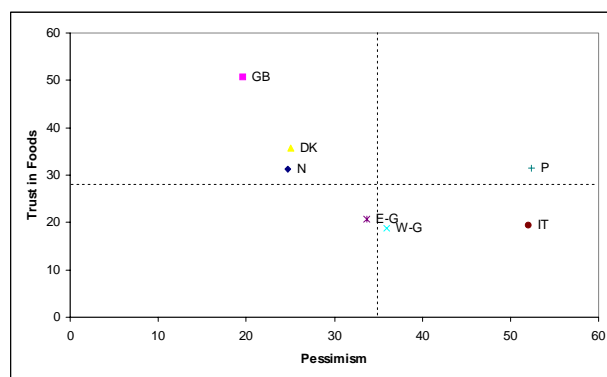
Following the same kind of logic, we expect that those who feel that an issue has undergone positive developments would also be more optimistic with respect to particular foods, and thus on average have higher trust scores as compared to the baseline category. The results are not as consistent as was the case for the ‘*worse*’ variable, but still predominantly in line with our expectations. The largest effect is registered for Italian consumers who feel that taste and quality have improved; this group has on average trust in 6.2% more food items than the baseline category. The atypical result is found among their Portuguese counterparts who are typically having trust in fewer food items. It is hard to come up with a good explanation for this, other than the fact that substantial food crises in the meat sector have led to a general uncertainty among Portuguese consumers — and in some cases a deeply felt distrust. Such sentiments are likely to be overrepresented in some groups; perhaps those being worried about taste and quality are one such category.

As for the ‘*don’t know*’ category, it is primarily included in the equation because we did not have well-founded expectations for the trust levels among these respondents. They

have explicitly declared themselves unable to find a location on the *'worse – improved'* continuum, and could very well prove to be on the extremes in either direction with regards to trust. However, as we see in table 4.5 they are predominantly not significantly different in that respect from the baseline category. In other words, they are in the centre of the trust distribution. There are two exceptions to these trends: Italian consumers who don't know about the developments for nutrition and East Germans who don't know about safety are on average having trust in fewer food items than are those feeling that the situation is marked by status quo. Again, it is hard to come up with a good explanation for this.

Let us also notice that in six out of seven contexts, consumers who feel that all five issues have remained more or less the same over the years are estimated to have trust levels that are slightly higher than their respective national averages. This is evident from comparing the value of the constant with the corresponding index mean. From one perspective, such a truly neutral position should not be expected to raise strong sentiments. However, being somewhere in-between *'worse'* and *'improved'* could typically mean *'content'* or *'reasonably content'* rather than *'dispassionate'*, *'indifferent'* or *'ignorant'*. In as much as that is the case, it should not surprise us if the group means for these categories are on the positive side of the national averages. The exception is GB where the value of the constant is somewhat lower. But that need not run counter to our argument. Obviously, the high national averages for Britain could be brought around by groups of very confident consumers pulling the values upwards — a possibility that is not incompatible with a basically content *'all issues have remained the same'*-category.

Looking at each of the national settings separately, the impact of the various food issues on trust in foods probably vary according to their respective food debate agendas. The exception is the Danish context, where none of the issues seems to matter at all. In Norway, on the other hand, two concerns seem to influence the trust levels: *'safety'* and *'farming methods'*. Whereas the former was a major topic in the media at the time of the survey, the latter is a minor, but recurrent theme in the food debate. Especially in view of the food crises in other countries, Norwegian farming is portrayed as teamed up with nature and purity, and a production system that is subjected to professional control regimes. In view of recent events, we would also expect British consumers to be sensitive to *'farming methods'* when deciding about trust in foods. But they are not. Worries about farming methods do not seem to be linked with trust, whereas *'safety'* matters instead. *'Nutrition'* could be a dimension with an impact as well, but here the effect of belonging to the *'worse'* category is only significant at $p < .10$. On the other hand, as the only national context the *'prices'* dimension matters. After all, Britain probably has the most developed and competitive food market in our sample, and also a discernible poverty problem. This may be the background for observing that a feeling of price improvements is associated with higher trust levels.

Figure 4.1: Trust Map III: Trust as a function of Pessimism. By Countries. 2002.^{a)}

^{a)} The map is produced by plotting the combined national variable averages for each country into the coordinate system. The average values used are reported in tables 3.3/ 3.4 (trust) and 4.3/ 4.4 (pessimism), respectively.

Moving to the south of Europe, trust in food seems to be influenced by ‘*quality and taste*’ issues in both Italy and Portugal. Especially in the latter country, the effect is striking. On the other hand, the two settings also differ from one another with respect to the impact of food issues. Given the recurrent food crises in Portugal, it makes sense to register that ‘*farming methods*’ as well as ‘*safety*’ seem to matter. This is not the case in Italy. Instead, ‘*nutrition*’ is important for the degree to which Italian consumers have trust in food items.

As for Germany, this is probably the most complex of the national contexts. In West Germany, all issues but one seem to matter — and among them, especially the ‘*farming methods*’ and the ‘*quality and taste*’ dimensions. The exception is ‘*prices*’ where only those who cannot assess the development — i.e. the ‘*don’t knows*’ — clearly have less trust in the twelve food items. In East Germany many of the same effects are found, even though they are typically weaker here. However, the relationships between trust and ‘*safety*’ assessments are more distinct.

Finally, we once again notice that micro-level variables obviously have limited explanatory force with respect to the trust phenomenon: most coefficients and R-squares in table 4.5 are moderate. On the other hand, there are substantial results at the aggregate level. As we have seen, the country variable sums up differences between the six countries both with respect to ‘*trust in foods*’ and ‘*pessimism*’. In order to produce an overall picture of the relationship between the two variables, we use the overall national mean values to make the trust map III in figure 4.1 above. In the upper left square we find the countries in which below-average pessimism scores are associated with above-average trust levels. These are GB, Denmark and Norway. The German regions are found in a

middle position, characterised by medium pessimism levels and below-average trust scores. Here the trust levels are, in other words, lower than could be expected from the amount of observed pessimism. For Portugal, the situation is the opposite: the Portuguese are having higher trust scores than the high degree of pessimism suggests. Italy is more consistent, characterised as it is by a combination of below-average trust and above-average pessimism scores.

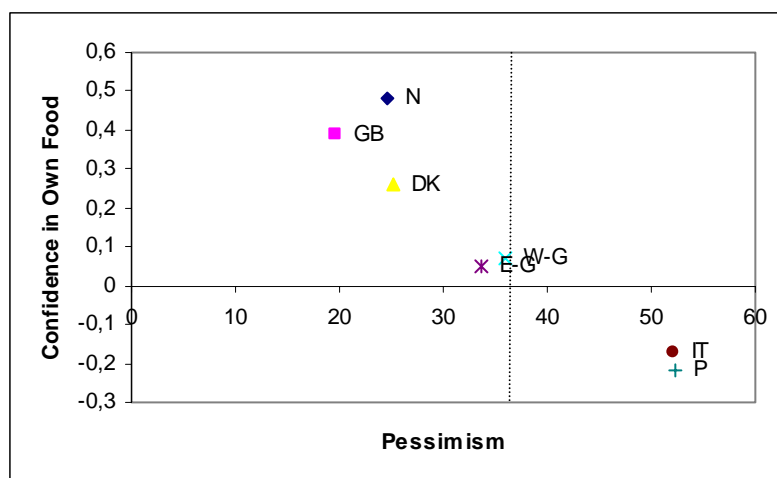
4.4.2 CONFIDENCE IN OWN FOOD

We believe that one's understanding of general developments eventually will translate into everyday practices and cautions. Thus, as previously stated, we anticipate that pessimism in food issues not only influence trust in foods in general, but also that it eventually impact one's confidence in the particular items that is bought and taken home for consumption.

The dependent variable in the analyses that follows is the confidence variable discussed in chapter 3.5. As we know, it has three values: one's confidence in the food he puts on his own table may vary from '*a small degree*' via '*some degree*' to '*a large degree*'. The distribution of the variable in each of the seven national contexts is reported in figure 3.3. We have tested the relationship by running a simple regression model using pessimism in food issues as independent variable. Due to the complications raised by a three-category dependent variable, the test is based on a dichotomous dependent variable distinguishing between '*large degrees*' of confidence vs. other assessments. The analysis yields highly significant coefficients in most of the national contexts. The weakest results are for Portugal. The model fits are, however, modest.⁷² A plausible explanation is that confidence in foods bought and taken home to consume is, at the end of the day, a matter of one's purchase strategies, powers and knowledge. In other words, even though developments over time are found to be on the negative side, most consumers could still generally succeed in securing at least reasonably safe foods for themselves in the marketplace.

Still, the test leaves little doubt that assertions about long-term trends matters. In that respect, the aggregate-level trust map IV in figure 4.2 below is informative. It basically shows that below-country-average pessimism in food issues are associated with high degrees of confidence in what is put on one's own table at home, and vice-versa: above-average pessimism leads to low degrees of confidence. In fact, as more than 36% of the

⁷² In this test (not shown), the dependent variable is a dummy, where people who only have confidence to '*a large degree*' score 1 and all others 0. The only independent variable is the pessimism index. A logistic regression is run on each of the seven national sub-samples. The pessimism effect is significant at $p < .001$ in all countries except from Italy ($p < .01$) and Portugal ($p < .10$). The Cox & Snell R^2 is highest for Norway (.048) and lowest for GB (.005).

Figure 4.2: Trust Map IV: Confidence as a function of Pessimism. By Countries. 2002.^{a)}

^{a)} The map is produced by plotting the combined national variable averages for each country into the coordinate system. The average values for 'Pessimism' are reported in tables 4.3/ 4.4. As for '*Confidence in Own Food*', 'High Degree' is coded as 1, 'Some Degree' as 0 and 'Small Degree' as -1. For each country, the average value on this variable is calculated and plotted into the coordinate system.

issues are thought to have deteriorated — i.e. in practice two issues or more — negative confidence values are produced, indicating that many consumers in these settings have only “*small degrees*” of trust in their own foods. Here we find two countries whose national averages allocate them to the ‘*high-pessimism-low-confidence*’ lower right-hand square of the graph: viz. Italy and Portugal. The German regions display close to average scores on both variables, while Denmark, GB and Norway are all found in the upper left ‘*low-pessimism-high confidence*’ square. Thus, the results are by and large expressing the same tendencies as trust map III in figure 4.1.

However, trust map IV indicates a stronger linear relationship with respect to how the six countries are placed in the coordinate system through the combined aggregate average values for pessimism and trust. The exception is Norway, where a pessimism score corresponding to that of Denmark is associated with a much higher level of confidence. A possible explanation is that whereas the food scandal at the time of the survey led to a slightly higher pessimism score than otherwise would have been expected, it didn't affect the Norwegian consumers' confidence level in quite the same way. This, in turn, points in the direction of what we suggested above: negative assertions about general developments are typically met at the micro level by implementing adequate purchasing strategies. It also indicates that confidence in the products we actually buy may be at a deeper, personal — and therefore perhaps at a more unassailable — level than general assessments based on the flow of external events in the food sector. If so, other condi-

tioning factors for the phenomenon must also be taken into consideration. In the next chapter we take a step in that direction.

4.5 SUMMARY

The main findings in this chapter can be summarised as follows:

- ❖ The reasonability of prices is considered to have deteriorated over the years by on average 52% in the six countries. The proportions are highest in the Euro area — i.e. Portugal (84%), Italy (68%) and the German regions (63% – 75%). Pessimism over prices is lowest in Norway (23%).
- ❖ Quality and taste are considered to have deteriorated over the years by an overall percentage of 39. Again the proportions are highest in Portugal (67%) and lowest in Norway (26%). Also the percentage of Italian consumers favouring the viewpoint is high (60%).
- ❖ Farming methods are considered to have become worse over the years by an overall percentage of 31. This time around, the proportions are highest in Italy (48%) and lowest in GB (19%). They are also high in Portugal (37%).
- ❖ Nutrition is considered to have become worse over the years by an overall percentage of 27. The proportions are highest in Italy (46%) and lowest in GB (13%). The percentages are also high in Portugal (40%).
- ❖ Safety is associated with least worries; the overall percentage considering it to have become worse over the years is 25. The proportions are again highest in Italy (39%) and lowest in GB (12%). They are also high in Portugal (33%).
- ❖ The national rank-orders of the five food issues most commonly associated with pessimism typically include ‘*prices*’, ‘*taste & quality*’ and ‘*farming methods*’ among the top three topics. In four out of six countries, ‘*prices*’ is ranked as number one. Denmark put deterioration of ‘*taste and quality*’ at the top while the Norwegians rank ‘*safety*’ as the number one issue.
- ❖ Adding the five issues together to form a pessimism index, shows that the German regions are in the centre of the pessimism distribution. The countries, in which consumers find the highest number of issues having deteriorated, are Italy and Portugal. Pessimism is least widespread in GB.
- ❖ The individual-level analyses on the relationship between pessimism and social divisions generally yield modest associations. However, gender is having consistent effects in all countries but GB and East Germany, women being slightly

more pessimistic than men. Also, shopping and eating behaviour are significantly impacting the distribution of pessimism in many of the countries. People who frequently buy food or eat meat or vegetables are typically less pessimistic than others. High degrees of pessimism typically reduce the number of trusted food items. Consumers who find any of the issues *'the same'* as before tend to score above average on the *'trust in food items'* index.

- ❖ Combining national average scores on the *'trust in food items'* index and the *'pessimism'* index respectively, show that GB, Denmark and Norway are characterised by a combination of little pessimism and high trust, whereas Portugal and Italy display the reverse pattern. The two German regions are close to average scores on both variables.
- ❖ Combining national average scores on the *'confidence in own food'* index and the *'pessimism'* index respectively, yields the same results: GB, Denmark and Norway are characterised by a combination of little pessimism and high confidence, whereas Portugal and Italy display the reverse pattern. The two German regions are once again close to average scores on both variables.

CHAPTER 5

TRUST IN INSTITUTIONAL ACTORS

5.1 INTRODUCTION

The focus in this chapter is on institutional actors — i.e. producers, sellers, media, politicians, public agencies and special interest organisations. They all occupy positions at various parts and levels of the food production and -distribution system. This means that they have different roles, and that their powers and types of influences in the food institution may vary considerably. Still, they have in common that they are part of the same system, operate in a section of it and thereby directly and indirectly influence food issues like those discussed in the previous chapter: *'prices'*, *'taste and quality'*, *'safety'*, *'nutrition'* and *'ethics'*. Above all, their roles are not only significant as stand-alone functions, but must basically be seen as necessary and interrelated constituents of a chain system; if one of them falls short of ongoing standards, it may seriously affect the end product for the consumer, even though other actors do their job.

Obviously, the degree to which we can trust institutional actors is important for the chances to secure safe, high-quality foods at reasonable prices. But there is also another reason why such trust is vital; the presence of well-functioning institutional actors implies that risk assertions and responsibilities for keeping food hazards at an absolute minimum are transferred from the individual to the institutional level. The implication is that trusting these actors is efficient and rational because it saves the individual for insurmountable and time-consuming efforts — and worries. In fact, as long as the components making up the food system actually work, the consumers need not spend much time on risk considerations but may instead concentrate on choosing between safe products. The multitude of ingredients and procedures that goes into a single food product makes trust in institutional actors the prototype of *'routinisation'* — which is, according to Berger and Luckman, no less than a necessity and a presupposition for social life.⁷³ On the other hand, considering the fundamental importance of foods, institutional fail-

⁷³ Cf. Berger & Luckman (1984), Luhmann (1979), Gronow & Warde (2001), Swidler (1986).

ures are potentially serious and from a consumer point of view may at one extreme appear as something next to betrayal. Moreover, it is hard to imagine a society without at least a minimum of trust in the food institution.⁷⁴ In a market system this comes down to securing competition within trustworthy frameworks. Hence, various kinds of government regulations and non-market, third-party control bodies are normally called for.

For the analyses to follow, we generally anticipate that within the food system,

- 1) *Non-market actors are more trusted than market actors*
- 2) *Trust in institutional actors vary across countries and social divisions within them;*
- 3) *High levels of trust in institutional actors typically lead to high levels of trust in foods in general, as well as in the produce we buy and take home for consumption.*

5.2 TRUST IN INSTITUTIONAL ACTORS

We start out by looking at trust in five institutional actors: viz. ‘retailers’, ‘farmers’, ‘authorities’, ‘media’ and ‘manufacturers’. In order to contextualise people’s confidence, the measurement tools link the consumers’ attitudes to specific claims:

- (a) “Safe food is a prime concern among the retailers”;
- (b) “Food manufacturers are more concerned about making money than about the quality and taste of the foods they sell”;
- (c) “Farmer’s pursuit of production efficiency does *not* harm animal welfare”;
- (d) “Food authorities are more concerned about regulating prices than about protecting consumers from hazardous foods”;
- (e) “The media exaggerate food problems to increase the number of viewers and readers”;

[Options]: Fully agree/ partly agree/ disagree/ don’t know.

The claims reflect possible conflicting concerns that institutional actors might have with respect to their roles in the food system. As we know, markets encourage producers, sellers and consumers alike to pursue their own interests. Whereas producers and sellers should maximise production volumes and profits, consumers should consistently turn down offers that do not hold a certain standard — quality-wise as well as price-wise.

⁷⁴ The point is clearly illustrated by the fact that food scandals sometimes lead to political crises and shifts of leadership in governmental bodies as well as market organisations.

Naïve economic theory predicts that if they do, the overall long-term result is bound to be safe and high-quality products at reasonable prices. Still, results generated by the supply and demand mechanism alone are not likely to be quite as favourable. A major reason is precisely the fact that high production volumes and pursuits for maximum profit sometimes conflict with collective interests like high degrees of safety, reasonable prices and decent quality because such goals typically require investments in technology, property and labour. In so far as that makes sense, consumer trust in producers and sellers alike presuppose that these actors can be seen as — morally and legally — committed to put key collective concerns before self-interests. Several propositions about trust follow. For instance, a retailer that is not having safe food as a prime concern is not trustworthy. Likewise, a manufacturer who puts profits above quality and taste cannot be trusted, and farmers whose efficiency is at the expense of animal welfare fall short of ongoing ethical standards and represent a threat to collective interests in as much as foods made from badly treated animals obviously is a menace to human health.

Moreover, due to the fact that conflicting interests do exist, there is a call for adequate regulations of the food production chain. In modern societies, this is first and foremost a responsibility for governments and public agencies — a task that requires persistent focuses on safety and quality standards. But since bureaucrats and administrative bodies may have their own interests to pursue, there is also a need for watchdogs in the system. Among the multitude of institutions committed to that task are the mass media. It follows that if regulators and watchdogs fail to attend their roles, and instead concentrate on performing other functions, the whole food system is at jeopardy. Hence, consumers' trust in foods inherently depends upon the capabilities of third-party actors.

The survey questions cited above are designed to confronting the respondents with some of the conflicting responsibilities that institutional actors are facing, and to measure the degrees to which they feel that the right choices are made. Of course, these indicators may be more or less fit to providing us with adequate information about trust. But before we come to that, a technical note is necessary. As we see, the questions are carefully formulated in such a way as to minimise the probability of yes-saying. The practicality involved is that they alternate between describing the actor in positive and negative terms. As a consequence, the '*fully agree*' alternative sometimes reflects high degrees of trust, and sometimes the opposite. It follows that the same is true for the '*disagree*' option. To illustrate, fully agreeing with the statement in (a), means that retailers are trusted to have safety as a prime concern, whereas disagreeing with it essentially implies scepticism. In (b) on the other hand, the '*trust – no trust*' values come out exactly the opposite: here, choosing '*fully agree*' means that manufacturers are believed to put profits above quality concerns whereas disagreement indicates a positive evaluation of the actor. To be able to produce a consistent representation of the results, we have recoded each of the indicators in such a way that whichever of the two categories '*fully agree*' and '*disagree*' expresses '*trust*' is given the value 1, whereas the other is coded as -1. The '*partly*

Table 5.1: Mean trust in Institutional Actors in the Various Countries. Weighted results. N: Denmark (952-993), W. Germany (977-993), E. Germany (958-992), GB. (1467-1540), Italy (1904-1955), Portugal (930-982), Norway (955-991).^{a)}

Actor	Issues	Denmark	Norway	W. Germany	E. Germany	GB.	Italy	Portugal	Mean
Retailers	Safety	.76	-.02	.13	.24	.38	.21	.16	.24
Farmers	Ethics vs. profit	-.42	-.26	-.14	-.08	-.10	.80	-.22	-.06
Authorities	Safety vs. price	.07	-.07	-.05	-.06	-.19	-.37	-.24	-.13
Media	Not exaggerate	-.13	-.15	-.10	-.27	-.45	-.21	-.32	-.23
Manufact.	Quality vs. price	-.29	-.39	-.29	-.26	-.42	-.55	-.58	-.40

^{a)} All five variables are coded 1 for 'trust', 0 for 'partly' and -1 for 'no trust'. The table reports national mean values on each variable. The 'don't know' category is omitted, which means a loss of 1.6% – 4.7% of the cases. Cf. Q23 a) – e). Mean: Calculated as the mean of the country averages.

'agree' option is represented by a 0. Thus, we get five indicators (a) – (e), all of which varies between 1 and -1. Using the seven sub-samples, we have added the respondents' answers together and calculated the average scores on each variable. Positive mean values, then, generally indicate that a major proportion of consumers within a given country inclines towards 'trust' in a particular actor with respect to a specific issue, whereas negative values indicate liabilities towards 'no trust'. The results are shown in table 5.1.

Although we must not forget that trust measures are issue-specific, and therefore hard to rank according to a unifying principle, we have nevertheless ordered the presentation in such a way that the most trusted actor is put in the top row and the least trusted in the bottom row in table 5.1. Thus, looking at the overall mean country values, retailers are generally supported by the largest proportion of respondents, whereas manufacturers are considered trustworthy by only a very modest percentage. In-between the two comes 'farmers', 'food authorities' and 'media' — in that order. The only actor that is associated with an overall positive mean value is 'retailers'. The four others are subjected to considerably more critical evaluations.

A major reason for the observed rank-order is, of course, the issues raised by the survey questions. Starting out with 'retailers', there is obviously large proportions of consumers in all six countries that are confident that this group of actors are having safety as a prime concern. The contexts where positive evaluations are most common are the Danish and British settings, where the average score is .76 and .38 respectively. The perhaps most striking exception is Norway, where the average score is slightly below zero, indicating that the pivot among Norwegian consumers are in the lower middle part of the 'trust – no trust' continuum. Besides being generally known for their firm trust in public

institutions, Norwegian respondents may also have been influenced by the fact the food scandal hitting the country at the time of the survey essentially was about retailers being careless on hygienic routines.

It is important to notice that, as opposed to the other four indicators, there are not really any contrasting responsibilities specified in the survey question. The respondents are merely asked to assess whether or not they believe safety is a prime concern among retailers. Obviously, this could be a major reason why the mean scores on this variable is higher as compared to the other indicators. In fact, it could also be argued that it is not measure of trust at all: supporting a statement about safety being a prime concern among retailers does not in itself imply believing that these actors actually would give it first priority whenever market interests call for a relaxation of safety standards. On the other hand, this does not preclude the variable from potentially yielding important contributions as part of a larger, theoretically embedded argument about the degrees to which retailers are trusted as a food market actor.

As for trust in *'farmers'*, it is measured as an opposition between animal welfare and profits. The overall mean value for the variable is slightly on the negative side: -.06. The result as close to zero as this either indicates a large mid-category or a strong polarity of attitudes — i.e. large proportions of both trustful and sceptical consumers. The data support the former: the mid-category is typically the largest of three possible outcomes. In other words, most national settings are characterised by a substantial proportion of consumers being uncertain about whether or not productive efficiency is at the expense of animal welfare. The exception is Italy, where a very large share of the population obviously feels that ethical considerations are put before profitability.⁷⁵ And of course, the Italian average of .8 contributes significantly to an above-zero overall mean score for the variable. It is hard to find a good explanation for this. Let us also notice that British consumers lean towards the middle category: even after several food crises clearly pointing out weaknesses in current farming conditions including ethical issues like transportation of animals, the average score is only slightly below zero.⁷⁶ The lowest scores are obtained for Denmark, where the negative overall mean value is due to the fact that more than half of the consumers feel that animal welfare is secondary to production efficiency. Besides transportation, a focus on living conditions for chicken in the modern eggs- and meat industry may have contributed to the attitude.

Turning to trust in *'food authorities'*, the overall mean score for this indicator is negative: -.13. It means that on average, consumers in the six countries are typically either uncertain or expresses no trust with respect to the authorities' ability to focus on safety

⁷⁵ In fact, as many as 84% of the Italian consumers share this opinion.

⁷⁶ 31% of the British consumers are expressing scepticism towards farmers, whereas 21% trust them to put animal welfare before profits. Thus, the mid-category is supported by 48%.

before price regulations. Moreover, the issue of *'safety vs. prices'* seems to divide the six countries in two groups. The first one, made up by Denmark, Norway and the two German regions, is characterised by rather large mid-categories and equal support for the *'trust'* and *'no trust'* brackets. As we see in table 5.1, the overall mean scores for these countries are very close to zero. The other group consists of Portugal and Italy. Here, the *'no trust'* categories are the largest of the three possible outcomes, whereas the proportions of trustful consumers are rather modest. As we see, the overall averages for these countries are -.24 and -.37 respectively. GB ends up somewhere in-between the two groups; on the one hand British consumers resemble their Nordic counterparts in that the mid-category proportion is large, while on the other hand they are similar to the Southern consumers in that the proportion of non-trusting consumers is substantial as well.

'Food authorities' are obviously referring to a variety of governing bodies that may differ somewhat across institutional settings. Still, it is tempting to see the distribution for this variable as generally reflecting the traditional Nordic trust in authorities and the southern liability towards scepticism with respect to administrative bodies. As for the British result, probably the most significant feature is the support for the *'no trust'* category. After all, recurrent food scandals accentuate a need for stronger interference by third-party actors — even in a country traditionally marked by liberal, free market solutions. However, once again we must warn against over-interpreting the variable along a *'trust – no trust'* continuum. For food authorities undoubtedly have both prices and safety on their agenda. Giving priority to the former does not automatically imply neglecting the latter beyond reasonable expectations.

The second last indicator is whether or not *'media'* tend to exaggerate food problems in order to increase the number of viewers or readers. Again, as a generalised phenomenon, the term may refer to a totality of media companies whose composition and profile may vary somewhat across institutional settings. Also, just like the question about retailers, there are no explicit contrasts between opposing concerns stated. Still, the variable could be interpreted in terms of covering a continuum where “sticking to the truth” is at the one extreme and “almost telling a lie” is at the other. As we see in table 5.1, the overall average of -.23 indicates that there is larger support for *'no trust'* than *'trust'*, alongside with a substantial mid-category. The underlying data show that in four countries, the mid-bracket is larger than the *'no trust'* category. These are Norway, Denmark and the two German regions. In the case of GB, Italy and Portugal it is the other way around. The general impression, then, is that there is a considerable scepticism towards the press — especially in the latter group of countries. Many consumers obviously believe there is a tendency towards exaggeration in the media's handling of food problems.

The least trusted type of institutional actor is the *'food manufacturers'*. As producers they clearly have certain interests to pursue in competitive markets where the only survivors are those capable of creating sufficient profits. Thus, in as much as the manufacturing of taste and quality costs money, there is a conceivable opposition between this kind

of investments and the amount of surplus coming out of the production process. Of course, in the long run quality is generally likely to pay off. Still, some manufacturers are prone to try and make more money by cutting down on quality standards or circumventing ongoing regulations designed to secure safe foods for the consumers. Obviously, the low overall average for the manufacturer indicator in table 5.1 reflects this situation. On the other hand, there are certain variations to notice across national contexts, as summed up by a traceable division between the Nordic countries and the two German regions on the one hand, and GB and the Southern countries on the other. True, as the overall mean for the variable indicates, they are all characterised by substantial support for the ‘*no trust*’ category. However, whereas the mid-category is the largest in the former group of countries, it is second to the ‘*no trust*’ category in the latter, thereby indicating that scepticism with regards to in food manufacturers’ liability to prioritise taste and quality over profits is more distinct there than elsewhere.⁷⁷

Finally, let us notice that the bivariate correlations between the five indicators in table 5.1 are modest in all countries, varying from .005 to .357.⁷⁸ Although this is primarily a measure for linear association, it is yet another sign indicating that the aspects of trust measured in table 5.1 are qualitatively quite different.

5.3 TRUTH-TELLING

Actors who don’t tell the truth are by definition unreliable, and not worthy our confidence. Without much doubt, truth-telling is a valid trust dimension, yielding a more consistent measure than several of the variables presented in table 5.1. The approach was originally conducted in a Norwegian survey from 1999, and is now repeated here.⁷⁹ In both cases, the survey question used is this:

Imagining that there is a food scandal concerning chicken production in your country, do you think that the following persons or institutions would tell you the whole truth, part of the truth, or would hold information back?

- (a) Press, Television, and Radio;
- (b) The Processing Industry;
- (c) The Supermarket Chains;

⁷⁷ The support for the ‘*no trust*’ category in GB, Italy and Portugal is 51%, 62% and 64% respectively, while the corresponding percentages for the remaining countries are 31% (East Germany), 37% (West Germany), 40% (Denmark) and 46% (Norway).

⁷⁸ Pearson’s bivariate correlations.

⁷⁹ Cf. Berg (2000; 107ff).

- (d) Farmers;
- (e) Consumer Organisations;
- (f) Politicians;
- (g) Public Food Authorities;
- (h) Food Experts.

An important feature of this way of asking is the emphasis on a particular context by which to assess one's trust in each of the eight institutional actors. As we have argued elsewhere, confidence is essentially contextual — i.e. something granted to someone on specific conditions and in particular social settings. In as much as this an intrinsic feature of trust, it is important to get from general trust assessments to the settings in which it is granted — or not. The truth-telling indicators for this section attempt to do just that, related as they are to one such context, viz. food scandals concerning chicken production. Many consumers in our seven geographical areas have had to deal with markets where such hazards actually have occurred, or can relate to the situation because they have been exposed to some other market risk that raises more or less the same kinds of sentiments and dilemmas. Respondents may also link up to the situation through other people's experiences: media often broadcast food crises in a way that may facilitate consumers elsewhere to imagine what it would be like to live under such conditions. A generalised conception of '*crisis*', then, is the likely contextual clue by which our respondents assess their degrees of trust.

Looking at the reply options associated with the indicators, '*the whole truth*' is clearly different from '*parts of the truth*', which again is not the same as '*holding information back*'. But whereas most respondents hardly have had any trouble in distinguishing between them — this is supported by the fact that the '*don't know*' categories are indeed modest⁸⁰ — there is nevertheless a minor analytical difficulty related to the latter two options. In general, there should be little doubt that '*holding information back*' is more severe than only telling '*parts of the truth*'. Still, the latter is a mild variant of the former. Thus, the two categories are not entirely mutually exclusive. For that reason it makes sense to distinguish between those who feel that a given actor is telling '*the whole truth*' and everybody else. In that way, we end up with eight dummy indicators for trust, each containing information about whether or not one feels that a given actor will tell '*the whole truth*' in case of a food scandal — or not.

Moreover, as we turn to the empirical results there is every reason to underline that the eight actors probably mean slightly different things in each of the national contexts, as their organisational features, institutional assignments and impact in public discourse

⁸⁰ The overall '*don't know*' proportions in the eight truth-telling variables vary from 2.6% (media) to 4.4% (politicians).

Table 5.2: Percentages of consumers in the various countries who believe that specified institutional actors will tell the whole truth in case of a food scandal. Weighted results. N: Denmark (1000), W. Germany (1000), E. Germany (1000), GB. (1566), Italy (2006), Portugal (1000), Norway (1004).^{a)}

Actor	Denmark	Norway	W. Germany	E. Germany	GB.	Italy	Portugal	Mean
Consumer Organisations	71	73	63	62	45	62	66	63
Food Experts	56	65	53	53	44	45	49	52
Food Authorities	41	47	29	30	36	31	26	34
Media	44	52	27	20	24	26	39	33
Farmers	14	19	9	9	25	9	10	14
Supermarket Chains	16	10	4	4	17	10	6	10
Politicians	11	14	3	2	8	4	4	7
Processing Industry	6	6	1	1	10	7	8	6

^{a)} All eight variables are coded 1 for 'whole truth' and 0 for 'other'. The 'don't know' category is included in the 'other' bracket. 1 – 2 observations are missing on each of the variables in the GB sub-sample. Cf. Q22 a) – h). Mean: Calculated as the mean of the country averages.

may vary from country to country. This means that the data must be interpreted with great care. Still, as it turns out, the consistency in observed evaluations indicates that the respondents have interpreted the survey questions to be about institutional roles more than anything else. As such, the patterns reported in table 5.2 above lend themselves to tentative cross-national comparisons.

As we see, the table is organised in four sections, each with two actors in it. The reason for that is easily observed in the means column: the support for the eight actors seems to form a “staircase”, each step containing two institutions. Starting from the top, the country means for 'consumer organisations' and 'food experts' are above 50%. The level of support is substantially lower — but still high — for the next couple of actors: on average, 33% – 34% feel that 'food authorities' and 'media' will be truth tellers. Next, there is yet another step down in terms of support for 'farmers' and 'supermarket chains': only about 10% – 14% on average believe that these actors will tell the whole truth. And finally, the least trusted among the eight are 'politicians' and the 'processing industry': The country mean values indicate that some 6% – 7% believe that these actors are going to be truth-tellers. Although varying somewhat around these score levels, also the conditional means generally follow the “staircase” pattern.

The stepwise distribution in table 5.2 also makes sense substantively. Again starting from the top, consumer organisations as well as food experts may tentatively be classi-

fied as typical third-party actors. Indeed, both categories vary considerably in content and profiles across institutional settings. For instance, in some countries food experts may be associated with commercial organisations as well as with more or less independent spokespersons in the public discourse. Also the impact of consumer organisations may vary considerably. Still, the widespread support among the consumers indicates that both types of actors are perceived as generally representing some kind of “expertise” that more often than not is to the consumers’ advantage. Next, both food authorities and the media are typical third-party actors, but as opposed to the former top-two they are perhaps not as clearly perceived to be on the consumers’ side. For instance, as for the media we have already seen that a substantial proportion of consumers feel that they have a tendency to exaggerate scandals in order to increase the number of viewers or readers.⁸¹ Likewise, food authorities may have their own interests to attend to — whether political or embedded in administrative procedures.

The lower half of table 5.2 is primarily made up by market actors. For instance, the third pair is made up by farmers and supermarket chains. These are institutions with distinct self-interests that potentially may prevent them from sticking to the truth in case of a scandal. However, let us notice that the GB averages for these institutions are well above the overall mean levels, in spite of the recent food problems there. Next, the final and least trusted pair of institutions is politicians and the processing industry — in that order — both of whom are powerful actors in the food system with strong interests to defend. This is next to self-evident in the case of manufacturers. The low support for politicians, on the other hand, may originate from a wide variety of circumstances, ranging from incompetence, incapability and lack of action upon important food issues, via involvements with market interests, to general distrust in politicians as such.

The national rank-orders of truth-tellers do not depart much from the order in which the institutions are displayed in table 5.2. A quick look at the overall means column tells us that the distances between each pair are generally so large that a change of order involving institutions from below a given step is quite unlikely. A closer inspection of the conditioned means confirms the anticipation. Of course, the within-pair rank-order may vary across national contexts. But at our level of analysis, that is hardly substantially important. Besides, as we see in table 5.3 below, such movements are exceptions, not the rule.

It is interesting to note that the Norwegian rank-order is very much the same as one that was recorded for 1999. That survey is slightly different from ours in that specific organisations rather than types of actors were named and subjected to evaluation by the respondents. Still, in the upper half of the rank-order we find consumer organisations, food experts, authorities and media. The latter half is made up by farmers, supermarket

⁸¹ Cf. Berg (2000:108) where exaggeration and truth-telling is directly linked to one another.

Table 5.3: National Rank-Orders of Truth-telling Institutional Actors. The ranking is based on the results in table 5.2.

Rank	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
1	Cons. Org.	Cons. Org.	Cons. Org.	Cons. Org.	Cons. Org.	Cons. Org.	Cons. Org.
2	Food Experts	Food Experts	Food Experts	Food Experts	Food Experts	Food Experts	Food Experts
3	Media	Media	Food Auth.	Food Auth.	Food Auth.	Food Auth.	Media
4	Food Auth.	Food Auth.	Media	Media	Farmers	Media	Food Auth.
5	Sup. Chains	Farmers	Farmers	Farmers	Media	Sup. Chains	Farmers
6	Farmers	Sup. Chains	Sup. Chains	Sup. Chains	Sup. Chains	Farmers	Sup. Chains
7	Politicians	Politicians	Politicians	Politicians	Proces. Indust.	Proces. Indust.	Proces. Indust.
8	Proces. Indust.	Proces. Indust.	Proces. Indust.	Proces. Indust.	Politicians	Politicians	Politicians

chains, politicians and the food processing industry.⁸² Although we know little about corresponding situations in other countries, we may tentatively assert that rank-orders of truth-tellers tend to remain rather stable over time — at least in countries where no big food scandals and institutional re-organising take place.

The main impression from tables 5.2 and 5.3 is that there is a high degree of agreement across the seven settings about who is believed to tell the whole truth and who is not. This goes for the percentages supporting each of the institutional actors (table 5.2) as well as the rank-ordering of them (table 5.3). The general conclusion is that actors like consumer organisations and food experts are ranked highest, while market actors are ranked lowest. Authorities are also highly valued with respect to truth-telling.

⁸² Cf. Berg (2000:107 – 109).

Table 5.4: The Truth-Telling Index by Countries. Weighted estimates. Linear Regression. 2002.^{a)}

	Index 7: Truth Telling
Constant (i.e. East Germany)	22.6***
Denmark	9.7***
Norway	13.2***
West Germany	1.0
Great Britain	3.3**
Italy	1.5
Portugal	3.4**
N	8574
Adj. R ²	.038
Overall Index Mean	27.2
No. Items in Index	8
Cronbach's Alpha	.6686

*** = p<.001 ** = p<.01 * = p<.05

^{a)} The index is based on the dummy variables in table 5.2. In step one, for each respondent all truth-telling items are added up. In a second step, the index is divided by its number of items, and then multiplied by 100. As a result, for the sample as a whole we get a variable that varies between 0 and 100. *Overall index mean*: Calculated as the mean of the predicted scores for each geographical area.

5.4 THE TRUTH-TELLING INDEX

We proceed as usual with computing a summary index — this time around for truth-telling, of course. The items that go into it are the dummy variables in table 5.2. For all respondents, they are simply added together, divided by the number of indicators and multiplied by 100. So, once again we get an additive index that varies between 0 and 100, where 0 denotes that none of the eight actors are believed to tell the whole truth in case of a food scandal, and 100 that all of them are. Alternatively, it can be interpreted in terms of percentages. To illustrate, the overall index mean reported in table 5.4 above denotes that on average some 27.2% of the eight institutional actors are believed to be truth-tellers in case of food problems. Let us also notice that the Cronbach's Alpha value is reasonable, albeit in the lower realms of what is desirable for index reliabilities.

The regression model reported in table 5.4 has the truth-telling index as dependent and the country dummies as independent variables. As usual, East Germany is the baseline context by which all other countries are compared. As is expressed by the constant, it is

estimated that East-German consumers feel that 22.6% of the actors will tell the whole truth in case of a food scandal. This is somewhat below the overall average for the index. The West German and Italian values are slightly higher, but not statistically different from the East German score. Since the results for the four other countries are significantly higher, the two German regions along with Italy constitute an area in which consumers are having trust in fewest institutional actors. This is well in line with the previous findings for *'trust in foods'* as well as *'pessimism'*.

The analysis in table 5.4 also shows that there is a middle level and a top level of trust involved with respect to truth-telling. The middle level is made up by Portugal and GB, where — as compared to the German Regions and Italy — in excess of 3% more actors are believed to tell the whole truth. Of course, since the coefficients for Portugal and GB are practically identical, they are not statistically different from one another. But it is in the two Scandinavian countries that consumers report the highest proportions of truth-telling actors: whereas the Danish believe that an overall percentage of 32.3% of the eight institutions will be truth tellers, the corresponding result for Norway is 35.8%.⁸³

Comparing these results with the distribution on the *'pessimism'* index in table 4.3, we would generally expect countries with high values on this variable to score low on truth-telling. This is the case for the German regions and Italy. Likewise, we would expect low scores on *'pessimism'* to go together with high values on the truth-telling variable. Denmark and Norway are in line with this expectation. This leaves us with two exceptions. One of them is Portugal, where — as we know — the consumers are being pessimistic about more than half of the food issues. But unlike the Italians, who are sceptical about as many issues, the Portuguese score significantly higher on truth-telling. GB is the other exception. As we remember, British consumers are being pessimistic about fewer issues than any other nationality. At the same time, they are occupying the middle, rather than a top, position with respect to truth-telling. Tentatively, we may assert that the result reflects a kind of scepticism that is liable to follow from continuous, negative experience with food scandals — perhaps in particular involving actors like the food processing industry, politicians and supermarket chains.

In rounding off this section, we should note that, unlike the corresponding analyses for *'trust in foods'* and *'pessimism'*, the variance in the truth-telling index that is explained by the country variable, is rather modest: only 3.7%. In principle, this suggests two possibilities: either other social phenomena at the institutional level account for it, or individual-level variables do. It is to the latter possibility that we now turn.

⁸³ The calculations are as follows: Denmark: [value for East Germany] plus [value for Denmark] = [22.6] + [9.7] = 32.3 index points. The corresponding value for Norway is of course [22.6] + [13.2] = 35.8.

5.5 THE IMPACT OF SOCIAL DIVISION

Assertions about whether or not institutional actors are going to tell the whole truth in case of a food scandal is the outcome of social processes, and as such conditioned by the contexts in which food become an interpersonal issue. It follows that differences in assessments about truth-telling could follow traditional, stratifying characteristics. Especially since the institutional-level analysis in table 5.4 yielded a low R^2 , it makes sense to proceed along this line of thinking. In the regression analysis to follow, we generally anticipate that traditional demographical variables and certain social commitments are having an impact on truth-telling assessments. As usual, we run identical regressions for each national sub-sample. The dependent variable is the truth-telling index presented in the previous section. The results are presented in table 5.5 below.

The general impression from the seven analyses is — once again — that social divisions have a modest impact on the constitution of trust assessments. The explained variances vary from close to zero for the Norwegian and Danish sub-samples, to 6.6 % for Portugal. In the other countries the R^2 are between 2% and 5%. But what is far more important is the fact that most coefficients are small and hardly statistically significant. Take the background variables as an illustration. Among them, the gender difference is the most distinct and consistent effect. In all countries, the coefficient is negative, indicating that — *ceteris paribus* — that women are less likely to believe that institutional actors are going to tell the whole truth in case of a food scandal. However, the effect is only significant at $p < .5$ in two national settings — Italy and Portugal — and at the .10 level in Denmark, East Germany and Britain. Moreover, the gender coefficients are small. The largest one is found for Portugal, denoting that women on average assess 4.9% fewer of the eight institutional actors to be truth-tellers, compared to men — *ceteris paribus*. In absolute numbers this amounts to less than half an actor.

As for the remaining two background variables, education does not seem to make a difference in any of the national contexts but East Germany. Age, on the other hand, is statistically significant in both of the German regions as well as in Italy and Portugal. Here, older cohorts assess fewer actors as truth-tellers — *ceteris paribus*. In Portugal and West Germany, the coefficients imply an estimated difference between a 60 year old and a 20 year old corresponding to 8%, or on average about 0.6 institutional actors less for the former as compared to the latter.⁸⁴ From a substantive point of view, this is perhaps the single most important variable in the model.

⁸⁴ The calculations are as follows: 60-yrs.: $[-0.2 * 60] = -12$; 20 yrs.: $[-0.2 * 20] = -4$; 60 yrs. minus 20 yrs: -8.

Table 5.5: The Impact of Social Affiliation in Seven Settings. Dependent Variable: Truth-Telling. Linear Regression. Weighted estimates. Unstandardised Coefficients. 2002.

Dimensions	Variables	Den- mark	Norway	W. Ger- many	E. Ger- many	G.B.	Italy	Portu- gal
	Constant	20.9**	15.8□	29.1***	33.9***	16.3*	21.9***	35.3***
<u>Background:</u>	Gender	-2.5□	-1.2	-1.3	-2.1□	-2.7□	-2.6*	-4.9***
	High Education	1.6	-0.6	-0.2	2.4*	0.6	0.9	0.5
	Age	-0.04	0.0006	-0.2**	-0.1*	-0.06	-0.1***	-0.2**
<u>Househ. Comp.:</u>	No. Persons	-1.5	-0.3	-0.5	-1.3□	0.3	-0.2	0.3
	No. Pers. u/18	0.3	0.4	-0.6	2.3**	-0.5	0.6	-1.9□
<u>Location:</u>	Rural	2.0	1.7	-1.8□	-1.0	-0.6	-0.4	0.5
<u>Occupation:</u>	Students	-0.9	-3.9	-3.2	4.1	-2.7	-3.4□	0.8
	Pensioners	-3.3	-3.9	-1.0	-1.3	2.2	-0.4	1.6
	Home Workers	0.04	1.9	2.0	0.8	4.1□	-2.2	2.9
	Unemployed	-0.4	1.2	-3.4	0.3	3.4	-0.2	8.9**
<u>Responsibilities:</u>	Buys food occ.	4.8	5.4	6.0□	-0.7	2.5	-1.8	-8.5***
	Buys food reg.	4.2	3.6	2.5	-3.8	1.0	-1.2	-6.6***
Eating Habits	Eat Vegetables	0.4	1.6	-0.002	0.5	0.4	0.7	0.02
	Eat Meat	2.6*	2.8*	0.9	-0.1	2.7***	2.2***	1.3
	N	997	976	930	954	1384	2000	987
	Adj. R ²	.008	.005	.023	.048	.012	.026	.066
Index Means		32.3	35.9	23.7	22.6	26.0	24.1	26.1
Cronb's Alpha		.6629	.6591	.5429	.5371	.7308	.6647	.6949

*** = p<.001 ** = p<.01 * = p<.05 □ = p<.10

Variable definitions: *Gender:* M = 0, F = 1; *High Education:* University low levels or higher = 1 Other = 0; *Age:* in years.; *Rural:* Living in the countryside/ rural district = 1 Other = 0; *Buys food occasionally & Buys food regularly:* Yes = 1 No = 0 (Reference category is 'Never buys food'); *Eating Habits:* the 'Vegetables' and 'Meat' variables are both continuous, varying from Never = 1 to Daily = 5. *Index means:* Calculated as the mean of the predicted average scores for each geographical area. Cf. table 5.4.

Moving to household composition and place of residence, these factors are hardly having an impact in most of the national contexts. One exception is Portugal where the number of persons under 18 years of age has a marginally negative effect. Another exception is families living in West German rural areas have trust in slightly fewer of the eight institutional actors. Also, family composition seems to have marginal impact on trust levels in East Germany. All these effects are, however, rather modest.

Next, considering the impact of being positioned at the margins of the labour markets, it does not seem to make any difference either. Again, an exception has to be made for Portugal, where unemployed are estimated to believe that 8.9% more of the institutional actors will be truth-tellers in case of a crisis. This is the second single largest effect in the model, only surpassed by frequent meat eaters. It is hard, though, to think of a good substantive explanation for this. The same goes for Italian students, who also tend to consider fewer actors as truth-tellers. This effect is only statistically significant at $p < .10$.

Turning to food related activities and habits these are dimensions with some influences in several of the national contexts. We would generally expect persons who are responsible for buying the food for their households and people with particular eating habits to have established more distinct opinions about institutional actors in the food system than other consumers. The analyses lend some support to these hypotheses in certain areas. For instance, Portuguese consumers who occasionally or on a regular basis buy food are statistically different from those who never engage in such activities; they are typically assessing 6.6% – 8.5% fewer of the institutional actors as truth-tellers. The direction of the effect is, however, not stable across national settings. Thus, in West Germany it is the other way around: here, consumers who occasionally buy food for their households are typically expecting 6% more actors to tell the whole truth in case of a food scandal.

As for food habits, the frequency of vegetable eating makes no difference in any of the national settings. Meat eaters in Denmark, Norway, GB and Italy, however, are typically more confident in institutional actors than others. Moreover, the coefficients suggest that the effect of being a frequent meat eater is substantial. For instance, British consumers who eat meat on a daily basis feel that 10.8 % more of the institutional actors will be truth-tellers as compared to those who never eat meat.⁸⁵ The impact is slightly more modest in Italy and Denmark, and slightly higher in Norway. These results fit well into the pattern established in previous chapters: meat eaters are generally more trusting than others, and in some countries less pessimistic with respect to food issues.⁸⁶ Thus, once again we are confronted with the opposition between tacit vs. expressed trust, and with the relationship between attitudes and action. It falls beyond the scope of this report to elaborate on this, but both topics are likely to be focussed in future research emerging from the project.

Our final remark for this section is that the hypothesis we developed about the impact of individual-level variables generally finds little support. In this respect, *'truth-telling'* appears to be somewhat different from both *'trust in foods'* and *'pessimism'*. True, a modest support for individual-level explanations is common to them all. But as opposed

⁸⁵ The calculations are as follows: Frequent meat eaters, value 5.: $[2.7 * 5] = 13.5$; Those who never eat meat: $[2.7 * 1] = 2.7$; The difference between the two groups is 10.8.

⁸⁶ Cf. chapter 3.3 (trust) and 4.3 (pessimism).

to the others, assertions about truth-telling don't seem to vary as much across national settings, and the observed variations in the index are indeed only moderately explained by the country variable.

5.6 CAN ASSERTIONS ON TRUTH-TELLING EXPLAIN TRUST LEVELS?

Of course, trust in institutional actors as measured by assertions on truth-telling is qualitatively not the same as trust in food — neither in terms of trust in food items, nor as confidence in the food that is bought and taken home for consumption. This is technically supported by the fact that the correlation between the '*trust in foods*' and '*truth-telling*' indices are moderate.⁸⁷ Since correlations are measures of linear associations we shall be careful drawing strong conclusions based on them. However, even when non-linearity is accounted for, no alarming signals are detected with respect to having variables measuring identical social phenomena on both sides of the sign of equation.

For the analyses that follow it generally makes sense to anticipate that there is a positive relationship between truth-telling and trust in foods. In qualitative terms, we expect that substantial trust in institutionalised actors also leads to higher levels of trust in food items as well as in one's confidence in what is actually purchased for consumption in one's own household. The hypothesis appears to be straight-forward, but in as much as it gets support from the data it actually refers to diversified and quite complicated social processes. This is readily seen whenever it is realised that truth-telling is both an indicator of trust in itself, and a form of confidence that may influence other trust dimensions. A major reason for that is because it involves a conception of honesty that reaches beyond the context of crises. In the case of personal relationships the point is obvious: truth-tellers are trustworthy in some fundamental way. With regards to institutional actors the honesty conception involved is perhaps best described as '*business ethics*' in which producers and sellers acknowledge the unique values of their customers — both as buyers and persons. In short, any given product should be what the producer or seller says it is.

From a consumer's point of view, several ways of relating to such a conception of honesty may combine to produce a positive relationship between truth-telling and trust in foods. For instance, trust may tacitly — perhaps naively — be accepted as a fact of life. It may also be an explicit conviction about the actual state of affairs in the food system. Furthermore, it can be based on experience: wrongdoers are by and large taking on the

⁸⁷ The Pearson's correlation coefficient between '*trust in food items*' (index 1) and '*truth-telling*' (index 7) is .202. The corresponding statistic between '*confidence in own food*' and '*truth-telling*' is .166. Both correlations are statistically significant at $p < .01$.

responsibility by telling the truth and maximising the chances for finding rapid solutions to the problems. Yet another possibility is that the codex is considered to be valid for institutional actors in general, but not for every particular company or organisation in the system; there are always actors ready to tell a lie as long as it is to their advantage, but this is the exception rather than the rule. As opposed to the tacit taken-for-granted type of trust indicated above, this indicates that a positive relationship between truth-telling and trust in foods may emerge from quite complicated considerations. Therefore, let us also mention a fourth possibility, viz. that some, but not all, types of institutional actors in the food system are believed to be truth-tellers. In as much as that is the case, a positive relationship between the truth-telling index and trust in foods is caused by a preponderance of trusted over distrusted actors. It follows that the index should be broken up into its constituent parts to see which among them are particularly important to the emergence of trust in food items.

A candidate for the competing hypothesis is of course that the relationship between truth-telling and trust in foods is negative. In that case, high scores in the former index would go together with low scores in the latter. It is, however, hard to imagine how such a situation could emerge. It would mean that the consumers are considering the food system as generally made up by unreliable actors that take profitable shortcuts whenever they can, but who at the same time are ready to make the necessary confessions in case of discovery. But the psychology involved doesn't make much sense: entrepreneurs, speculators and bureaucrats pushing the limits too far are much more likely to continue pursuing their own interests in case of a crisis, which probably means that they are not prepared to tell the whole truth. For that reason, the competing hypothesis is better stated in terms of no influences between the different aspects of trust involved here. Whether empirically supported or not, this raises the much broader issue about how the various trust dimensions are — if at all — connected. We leave that for the next chapter.

Using '*truth telling*' as independent variable, we now proceed to look at the relationship between such perceptions on the one hand, and '*trust in foods*' — and later: '*confidence in own food*' — on the other.

5.6.1 TRUST IN FOOD AS A FUNCTION OF TRUTH TELLING

Just as in chapter 4.4.1 where the trust and pessimism dimensions were related, we start out by looking at the relationship between '*trust in food items*' (index 1) and truth-telling. As independent variables we shall use a detailed specification of the truth-telling dimension. The latter is needed to account for the possibility that the eight actors included in this index may contribute differently to the constitution of trust in food items — within a given national context as well as across national settings. Thus, to get beyond the mere anticipation about a positive relationship between the two trust dimensions, we shall break up the truth-telling index into its constituent parts, and instead use

Table 5.6: Trust in Foods (Index 1) by Truth-Telling. Weighted estimats. Linear Regression. 2002.^{a)}

Truth-tellers:	Denmark	Norway	W. Germany	E. Germany	GB.	Italy	Portugal
Constant	33.8***	23.9***	14.7***	15.4***	44.3***	15.0***	23.4***
Consumer Org.	-1.5	4.5*	1.0	2.8*	0.5	0.4	2.7□
Food Experts	1.8	-1.4	1.6	0.06	3.7*	1.7□	6.3***
Food Authorities	0.8	1.5	5.7***	4.2**	5.1**	1.8□	5.1**
Media	2.0	4.2*	-0.08	4.5**	1.7	2.3*	1.5
Farmers	1.0	3.6	4.5*	7.0***	5.0**	11.1***	9.0***
Superm. Chains	1.4	6.9*	6.6*	15.7***	7.0***	5.0**	-2.3
Politicians	3.4	3.0	3.0	0.6	-2.0	0.3	3.2
Processing Indust.	2.3	3.8	13.8**	23.2**	0.4	10.3***	5.7□
N	1000	1004	1000	1000	1555	2006	1000
Adj. R ²	.000	.035	.049	.088	.048	.088	.103
Index Means	35.8	31.2	18.8	20.7	50.8	19.4	31.5
Cronb's Alpha	.8830	.8562	.7413	.7374	.8410	.7863	.7568

*** = p<.001 ** = p<.01 * = p<.05 □ = p<.10

^{a)} Variable definitions: All the independent variables are dummies, coding 1 for those believing that a given actor will tell the whole truth in case of a food scandal, and 0 otherwise. Cf. Table 5.2 for more precise definitions. Index 1 is a variable summing up the 'very safe' categories on twelve food items. Cf. table 3.3 for a precise definition. *Index means*: Calculated as the mean of the predicted average scores for each geographical area. Cf. table 3.3.

dummy representations. Identical regressions are run for each sub-sample. The resulting analyses are reported in table 5.6 above.

Looking at the test statistics for the model, two general features deserves to be underlined. First, there is indeed a poor model fit for the Danish sub-sample: as the explained variance is zero, we are simply left with the national average score on the trust in foods index. Given such a result, it is no surprise that none of the coefficients is significant. In Denmark, then, truth-telling does not seem to impact the consumers' assessment of food safety at all. Second, by contrast, truth-telling matters to a substantive degree in many of the other national settings. For instance, in countries like East Germany, Italy and Portugal the adjusted R² run as high as 8% – 10%. Moreover, in all contexts but the Danish, several of the coefficients are statistically significant. Clearly, the two dimensions of trust considered here are related.

As opposed to the previous analyses based on the truth-telling index, table 5.6 provides us with information about the impact of each of the eight institutional actors. For a start, believing that *'politicians'* are truth-tellers does not impact assertions about trust in foods in any of the six countries. As suggested in a previous section, assessments about politicians may be rooted in several aspects of their functions, and as a consequence, it is unclear how the result should be qualitatively interpreted.⁸⁸ However, as an institutional actor, politicians are perhaps the most distant of the eight with respect to what is actually going on in the marketplace. For that reason, trust in politicians may generally be of limited importance with respect to confidence in food items.

Also, believing that typical third-party actors like *'consumer organisations'*, *'food experts'* and *'media'* are truth-tellers has a limited effect as it makes a difference only in two or three national settings. Still, let us notice that Norwegians who see consumer organisations as likely to tell the whole truth in case of a food scandal have on average trust in 4.5% more food items than others — *ceteris paribus*. As for *'food experts'*, belief in this type of actor raises the level of trust in foods in GB, Italy and Portugal, but not in the two German Regions, Norway and of course: Denmark. There are hardly any simple explanations for this. But we must at least take into consideration that *'food experts'* may mean different things in different settings. Clearly, this kind of expertise is found in various positions within the food system; as stand-alone third-parties, as part of governmental agencies and as members of food-processing units, just to mention a few. It follows that respondents in different countries may refer to different aspects of the expertise when they answer the survey question, thereby contributing the observed differences in table 5.6. A similar type of reasoning is necessary with respect to *'media'*, which may have a more or less prominent position in the food system across the seven geographical contexts. For instance, if newspapers and TV don't continuously focus on the food issue, these institutions are probably not seen as guarantors of safe food, even though they are expected to tell *'the whole truth'* in case of a crisis.

Now turning to the *'food authorities'* variable, we see that it has statistically significant effects in five out of six countries.⁸⁹ The perhaps most striking feature is that confidence in this institution does not seem to matter in Norway. In a country where authorities are traditionally seen as a guarantor of public welfare and a protector of collective interests it is a bit strange that such a deeply felt sentiment does not lead to increased trust in foods. A possible explanation is that confidence in governmental regulations are firmly embedded in most consumers' perceptions of food safety anyway, and consequently, that the

⁸⁸ Still, let us point out that *'politicians'* as a category in the survey question at least is important in order to make an explicit, cognitive difference between civic society and regulating authorities. From a methodological point of view, including *'politicians'* as a reply option may positively impact the conceptual validity associated with the measurement tool.

⁸⁹ In Italy the effect is statistically significant at $p < .10$.

47% believing that *'food authorities'* will tell the whole truth is not different in this respect from the 53% that don't share this opinion.⁹⁰ In other words, the truth-telling dimension of trust is not making a significant contribution beyond the more fundamental confidence in public authorities that is a prominent feature of the Norwegian setting.

By far the strongest effects in table 5.6 are associated with the market actors. Being confident that *'farmers'*, *'supermarket chains'* and *'the processing industry'* will tell the truth, has a statistically significant impact on consumers' trust in foods in at least four of the six countries. Moreover, the coefficients associated with these variables are larger than those detected for other types of actors. For instance, having confidence in *'farmers'*, is likely to increase trust in food items by between 4.5% in West Germany to 11.1% in Italy. The variable is statistically insignificant only in the two Scandinavian countries. Also confidence in *'supermarket chains'* yields similar results in all countries but two: Portugal and Denmark. Third and last, Germans who believe that the *'processing industry'* actors are truth-tellers in case of a crisis are on average having trust in 13.8% – 23.2% more food items than those who do not share this opinion. In absolute numbers this corresponds to nearly three foods. In Italy the effect is also high. It is well worth noticing that the effect of being confident in the food processing industry is a good illustration of what is actually happening. In table 5.2 we see that the proportions of consumers who actually trust the manufacturers are typically much less than 10%. Thus, we deal with a rather specific group of consumers with a particular perception of the food system environment; seeing the industry as truth-tellers obviously means that market hazards are by and large overlooked — at least in Italy, Portugal and the two German regions. Similar situations characterise the impact of the two other market actor variables: although the proportions of consumers involved are higher, it still is about rather particular segments of the population.

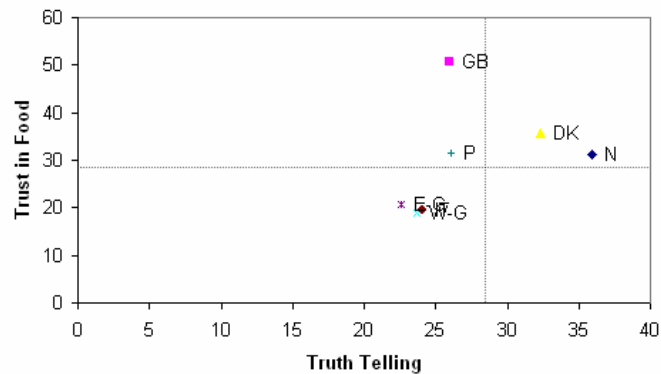
It is tempting to metaphorically see the results in table 5.6 as reflecting the opposite rank-order as compared to table 5.3. As we remember, it involved a hierarchy of trusted actors where consumer organisations were ranked first and the processing industry last. In fact, for convenience the rank-order of 5.3 is reproduced in the display in 5.6. Put crudely, the least trusted actors in the former table are those with the strongest impact on trust in foods. To explain this, the list of institutional actors may be re-grouped into three categories. Firstly, *'consumer organisations'*, *'food experts'* and *'politicians'* are typical civic institutions. Next, there are the governmental bodies, here represented by the *'food authorities'*. Finally, we have the market actors: *'farmers'*, *'supermarket chains'* and *'food processing industries'*. As measured in terms of truth-telling, we have seen that the most trusted actors are the civic ones, then comes the governmental and third the market institutions. In fact, as far as the latter category is concerned, rather small proportions of

⁹⁰ The percentages referred to here is found in table 5.2.

consumers actually trust them. As producers and sellers, these are also the group of actors that are most directly impacting the safety levels of available food items. It follows that the consumers' scepticism should first and foremost be directed towards them. It also makes sense that those who actually trust these actors also have trust in the products they make or sell.

As for the civic institutions, they may sometimes have a role as watch-dogs, but they are nevertheless rather peripheral to the market as such and the items sold there. In fact, the impact on the system may appear as unclear to many consumers. Thus, perceiving them as truth-tellers may not — or should not be expected to — make a lot of difference with respect to trust in foods. As compared to civic and market institutions, authorities end up somewhere in-between: as regulators, they obviously have an impact on the market, still they are not directly involved in the production and selling of items. As a consequence, it makes sense to observe that trust in authorities tends to have a middle-of-the-road influence on trust in food levels.

The analysis in table 5.6 could also be discussed by looking at the columns rather than the rows. Obviously, the varying impact of the eight institutional actors adds up to national-specific profiles with respect to trust in foods. However, it falls beyond the scope of this report to go into details in each of the six countries. Rather, we aim at delivering an overall, comparative picture of how they differ in trust-generating processes. A way to do that is to add up the relationship between truth-telling and trust in food items by combining the national average scores on these variables in a trust map. This we have done in figure 5.1 below. As we see, Denmark and Norway on the one hand, and Italy and the German regions on the other, conform to our general expectations for the analysis: whereas the former two countries score above average on both variables, members of the latter group are associated with below-average values. Thus, high numbers of truth-telling actors goes together with high numbers of trusted food items, and vice versa. GB on the other hand, breaks with this pattern, since British consumers score below average on truth-telling but above average on trust in food items. Strictly speaking, also Portugal fits this description. But since Portuguese consumers are found very close to the average value for the trust in foods index, they more contribute to blurring the impression of a straight-forward relationship between the variables than taking on atypical combinations of values.

Figure 5.1: Trust Map V: Trust in Food Items (Index 1) as a function of Truth Telling.^{a)}

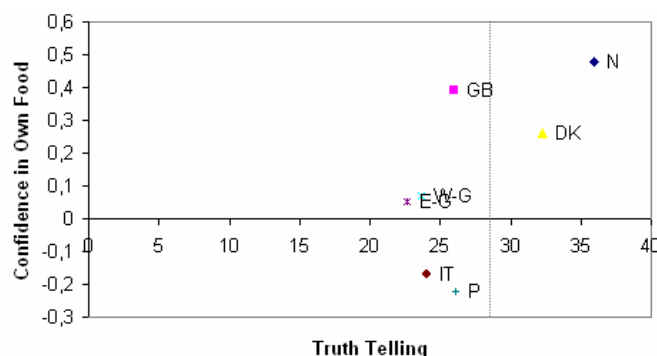
^{a)} The map is produced by plotting the combined national variable averages for each country into the coordinate system. The average values used are reported in tables 3.3 (trust in food items) and 5.4 (truth telling), respectively.

5.6.2 CONFIDENCE IN OWN FOOD AS A FUNCTION OF TRUTH-TELLING

We generally expect that if key actors in the food system are perceived as truth-tellers, this will eventually affect the degree to which one are confident that the food that is bought and taken home to consume is safe. Again, the argument is based on the core element of truth-telling, viz. honesty. In as much as being honest about responsibilities for a food problem also increases a given actor's credibility during normal times, consumers may judge the food market to be safer more generally. In particular, they may be surer that they are buying less harmful foods for their households. Thus, we expect the relationship between truth-telling and confidence in own food to be positive.

The dependent variable in the analysis to follow has, as we remember from chapter 3.5 and 4.4.2, three values; one's confidence may vary from 'a small degree' via 'some degree' to 'a large degree', coded as -1, 0 and 1 respectively. Its relationship with truth-telling has been tested in a simple bivariate regression model. Due to the complications produced by a three-category dependent variable, the test is based on a dichotomous dependent variable distinguishing between 'large degrees' of confidence vs. other assessments.⁹¹ The analysis yields highly significant coefficients in all but one of the national contexts. Portugal is the exception. However, the model fits are modest, which means

⁹¹ In other words, we refrain from running a multi-nominal logistic regression model. A simple logit model is enough for our purposes. The test is not shown here.

Figure 5.2: Trust Map VI: Confidence in Own Food as a Function of Truth Telling. ^{a)}

¹⁾ The map is produced by plotting the combined national variable averages for each country into the coordinate system. The average values for 'Truth Telling' are reported in tables 5.4. As for 'Confidence in Own Food', 'High Degree' is coded as 1, 'Some Degree' as 0 and 'Small Degree' as -1. For each country, the average value on this variable is calculated and plotted into the coordinate system.

that important explanatory factors are omitted from the model.⁹² The limited amount of explained variance is tentatively due to the fact that confidence in one's own food is primarily a question about purchase strategies, powers and knowledge. Whether or not actors in the food system are perceived as truth-tellers may not be all that important compared to such variables.

Still, the test leaves little doubt that truth-telling matter. Trust-map VI above reveals a quite linear relationship between the two variables. As opposed to the simple regression model just discussed all three categories on the dependent variable are now taken into consideration. In the map, the zero-point line represents the mid-bracket 'some degree' of confidence in own food. As for the truth-telling index, its overall average value of 26.9 points is marked by the dotted line in the graph. In this way, we once again get a four-square display. As we see, Norway and Denmark are both in the upper left square, denoting that they score high on both truth-telling index and confidence in one's own food. Italy and Portugal, on the other hand, are found in the lower right square. These are countries in which truth-telling assessment and confidence is below the average levels on both variables. The German regions are found below-average on the truth-telling variable but slightly above average with respect to confidence. Still, together with Norway, Denmark, Italy and Portugal, they constitute a pattern through which it is easy to imag-

⁹² In this test, the dependent variable is a dummy, where people who only have confidence to 'a large degree' score 1 and all others 0. The only independent variable is the truth-telling index. A logistic regression is run on each of the seven national sub-samples. The truth-telling effect is significant at $p < .001$ in all countries except from West Germany ($p < .01$). In Portugal the effect is statistically insignificant. The Cox & Snell R^2 is highest for Norway (.047) and lowest for Portugal (.001).

ine that a straight line could summarise the relationship quite well. Moreover, the gradient of such a line is substantial, indicating that truth-telling has a distinct impact upon the constitution of confidence in own food.

The exception to the pattern is once again GB; British consumers are characterised by scoring below average on truth-telling assessments, but second highest of all countries on confidence. Following the same logic as before, a possible explanation is that recent food crises have left British consumers sceptical of the honesty demonstrated by key food system actors. As can be seen in table 5.2, in particular the proportions believing that consumer organisations and food experts are truth-tellers are distinctively lower than in most other countries. In spite of this, the marketplace still seems to assure British consumers foods that on average are considered ‘*very safe*’ to eat — for instance through strategic behaviour.

5.7 SUMMARY

The findings in this chapter can be summed up as follows:

- ❖ Retailers are generally trusted to have safety as a prime concern. This is especially true for Denmark. The scepticism is greatest in Norway.
- ❖ As for trust in farmers to put animal welfare before production efficiency, most countries display a substantial degree of uncertainty. The exception is Italy, where trust in farmers is beyond dispute.
- ❖ Concerning trust that food authorities will focus on safety issues rather than prices the results generally reflect the traditional Nordic trust in authorities and the southern liability towards no trust in administrative bodies. British consumers end up somewhere in the middle.
- ❖ The media and food manufacturers are the two least trusted institutional actors. Such scepticism is more widespread in GB, Italy and Portugal than in the Nordic countries and the two German regions.
- ❖ Consumers’ rank-order of truth-telling actors in case of a food scandal forms groups of two. First come ‘*consumer organisations*’ and ‘*food experts*’. Next on the list are ‘*food authorities*’ and ‘*media*’. Ranked as third come ‘*farmers*’ and ‘*supermarket chains*’. The least supported couple of actors with respect to truth-telling are ‘*politicians*’ and ‘*the processing industry*’.
- ❖ The above rank-order reflects distance relative to the fabrication of food products. The least trusted type of actors in terms of truth-telling are producers and

sellers. The most trusted are consumer organisations and food experts. Authorities come somewhere in-between.

- ❖ The rank-order is more or less identical in all six countries.
- ❖ Based on Norwegian data only, the rank-order seems relatively stable over time.
- ❖ The index of truth-telling actors indicates that Norwegian and Danish consumers define the highest number of actors as truth-tellers. The German and Italians trust rather few actors to tell the truth in case of a food crisis. British and Portuguese consumers fall in-between.
- ❖ Traditional social divisions seem to have little impact on the number of perceived truth-telling actors. Still, experience as measured by age seems to matter to some degree, as the number of trusted actors tends to be lower in older cohorts. Meat eating habits work in the opposite direction: the higher the frequency of meat on the menu, the higher the number of perceived truth-telling actors.
- ❖ Truth-telling has an impact on trust in food items: the more actors perceived as truth-tellers, the more food items are considered to be *'very safe'* to eat.
- ❖ Believing that market actors — i.e. producers and sellers — are truth-tellers significantly increases the number of trusted food items. The effect is less distinct for third-party watch-dogs like *'consumer organisations'* and *'food experts'*. The effect of having this kind of trust in *'authorities'* is somewhere in-between.
- ❖ Denmark and Norway are characterised by scoring high both on number of actors considered to be truth-tellers and the number of food items held to be *'very safe'* to eat. The two German Regions and Italy score low on both variables. British consumers are the exception from this pattern, since the means for this setting are below average with respect to truth-telling and very high as for the number of safe foods.
- ❖ Whether or not key actors in the food market are considered to be truth-tellers also influence one's confidence in the food taken home for consumption: the more trust in actors, the more confidence in own food. The combined cores on these variables locate Italy and Portugal in low-trust regions of the distribution, while Denmark and Norway are found in the high-trust area. Again, British consumers depart from the general pattern, since they score low on truth-telling and high on confidence in the food they buy for their own households.

CHAPTER 6

DIMENSIONS OF TRUST

6.1 INTRODUCTION

The purpose of the analyses in chapters 3 through 5 has primarily been descriptive. So far, the various measures of trust were meant to catch different aspects or dimensions of trust in food. As such, they have been analysed in parallel, as more or less interrelated phenomena and as dependent variables in separate analyses on possible differences between countries and social groups. In order to further explore the interrelationships between them and the explanatory potentials that they hold, the present chapter attempts to take one step further and theoretically place the trust dimensions relative to one another. The nature of this venture necessarily has to be highly explorative, aiming at promoting more sophisticated comparative analyses in the future.

The theoretical scheme upon which we base our approach is the division between cultural and institutional explanations of trust, as outlined in the introductory chapter. In brief, whereas the former emphasise interpersonal trust as a precondition for trust in social institutions, the latter insists on the impact of how given institutions actually perform, either as an aggregate output or as individual experiences. And whereas the cultural approach gives prominence to primary socialisation in the constitution of interpersonal trust, the institutional perspective makes a point of the reflexive element in trust assessments as a continuous process throughout life. It falls well beyond the scope of this report to explore the full theoretical complexity of these positions. Rather, we delimit ourselves to the food system as a specific social realm where trust assessments are made, and ask to what extent our data lend support to either one of the two theoretical positions. As the analyses will show, both perspectives offer explanations that are complementary rather than competing, and refer to interrelated rather than separate sets of mechanisms.

We start out by revisiting the trust in food safety variables from chapter 3, highlighting their distinctive qualities as well as considering their interrelationships and possible intersections with the cultural vs. institutional trust division. Next, we introduce the basic indicator of trust within the cultural perspective: viz. *'general trust in most people'*. We then proceed to develop analytical models for food safety, where indicators of cultural as

well as institutional explanatory dimensions are included. Finally, based on the analytical results we tentatively sum up how the various indicators seem to contribute to the constitution of trust within the food system.

6.2 THE TRUST IN FOOD SAFETY VARIABLES REVISITED

In chapter 3 we introduced two trust indicators that in subsequent chapters have reappeared as dependent variables, viz. *'trust in foods'* and *'confidence in own food'*, referring to trust in twelve food items in general and the food one buys and brings home for consumption respectively. There is every reason to once again remind us that both variables are indicators of *'safety'* — i.e. to what degree consumers find food safe to eat, whether considered as a quantity available “out there” in the marketplace or as something that is actually chosen and bought for the household. As such, they are not only indicators of specific trust dimensions that are different from one another, but also aspects of food safety that are distinctly separable from other references for trust like assessments about long-term developments and trustworthiness of actors in the food chain.

6.2.1 INTERPRETATIVE IMPLICATIONS

The notion of culturally vs. institutionally based trust enables us to spell out some further differences between the two variables. Starting out with the *'trust in foods'* index, we have already argued that it reflects assertions about quantities of typified items (*'vegetables'*, *'fruits'*, *'beef'*, *'eggs'*, etc.) as they can be accessed in the marketplace. This turns the index into a typical output variable, measuring overall attitudes towards the system's ability to deliver safe foods. In as much as that is the case, it could — and should — be interpreted as reflecting a point of intersection between the consumers and the food institution. As such, it sums up a rather founding aspect of a particular social relationship, viz. that between the individual buyer on the one hand, and the various types of institutional actors on the other. This brings the variable close to the realm of social action, in that it provides the acting consumer with a roadmap with potentials to influence his market practice as well as initiating politically motivated conduct.

Alternatively, the index could be interpreted more specifically as reflecting individual assessments about the food produce that is actually being accessed in the marketplace and enters into one's diet. The core of this view is that the respondents — rather than general quantities of typified items — have their own foods in mind when answering the survey questions. As we shall discuss shortly, this may indeed be one of the references for making assertions about food safety. Still, the analytical results obtained for the variable only makes proper sense within the frameworks of an institutional perspective. Consider for instance the fact that its univariate distribution varies across the seven geo-

graphical settings — each representing different institutional orders. If the index primarily reflects safety evaluations about actual diets, these variations should display more or less the same pattern as the ‘*confidence in own food*’ variable which explicitly concerns items that are actually consumed by the respondents and their household members. But as trust map II suggests, this is not so.⁹³ Analytical results using various ‘*trust in foods*’ indices over time are even more illuminating. In particular, several analyses based on Eurobarometer and other sources indicate that trust levels in the late 1990’ies are normally higher in Norway than in GB.⁹⁴ In our survey, however, it is the other way around. The contrasting results may tentatively be explained by the fact that at the time of the survey, a food crisis rid Norway whereas British consumers found themselves at the end of a thorough cleanup process. The phenomenon summed up by the ‘*trust in foods*’ index is in other words sensitive to fluctuations in institutional performance over time. A further implication is that assertions about food safety as a function of system capabilities may change rapidly and hold potentials for considerable political turbulence.

As opposed to this, the ‘*confidence in own food*’ variable clearly refers to trust in a much narrower array of food items, viz. those ending up in one’s own household. We would generally expect such a variable to be less sensitive to shifts in institutional performance. After all, as long as the presence of contagious foods are not all-encompassing and safe alternatives are still available, hazardous foods may be avoided by adjusting one’s pursuit strategies to known risks in the market. The distributions produced by the ‘*confidence in own food*’ variable comply with this expectation. Again using Norway and GB as illustrations, the food crisis at the time of the survey in Norway was minor, involving only a few supermarket chains. Whereas the general trust levels with respect to food items available in the market fell, confidence in one’s own food remained high. Conversely, although high levels of market trust obviously had been re-established in the British setting, the proportions of consumers being confident in the food actually bought remained at the “normal” level as indicated by previous studies. Again, we have a clear indication that the ‘*trust in foods*’ and ‘*confidence in own food*’ not only refer to different phenomena, but that the former is related to institutional outputs and the latter to personal purchases.

This is not to underrate that the relationship between the two variables is quite complex. For a start, just like ‘*trust in foods*’, also ‘*confidence in own food*’ is related to the current market situation; since most items that make up one’s diet are purchased at the marketplace, safe eating at home is necessarily conditioned by it. Thus, it could be argued that assessments about confidence in the food that is bought for the household are likely to implicitly reflect one’s feelings about the performance of the food institution. On the

⁹³ Cf. figure 3.4.

⁹⁴ Cf. Berg (2000:32 – 35, 2000b), Almås (1995).

other hand, the '*confidence in own food*' variable goes beyond that since it is likely to sum up additional aspects of trust that are not related to market situation as such. At the end of the day, the degree to which one is confident that whatever is on the table is safe to eat is first and foremost based on one's knowledge, skills and ways of procuring food — all of which in some way or the other involve drawing upon the social capital in one's social network. This brings the foundations of the trust reflected by the '*confidence in own food*' variable closer to the cultural than the institutional realms of life.

The point is further expanded on by considering the fact that food acquisition and consumption take place within the frameworks of the household. As pointed out by Archer, the fact that we are all becoming members of a household by birth, we are at the same time involuntarily allocated to a place on society's distribution of scarce resources.⁹⁵ These are of course resources in a wide sense. From such a perspective, we are essentially administering the shifting opportunities and limitation they represent as we typically walk through life as members of successive households. Naturally, the household's economic situation is a decisive factor with respect to the foods that is actually found on the table; affordability determines the range of variety in food items as well as what niches of the market one is able to patronize. But being allocated to a position in the distribution of scarce resources also means that one has access to class- and status-specific arrays of work opportunities, neighbourhoods and educations, which in turn means opportunities to enter specific social networks. Made up by series of households, such networks are sources of knowledge, experience and skills, and provides for intra- as well as inter-family social arenas where food is an essential part of the interaction. In this way, being allocated to a position in society's distribution of scarce resources make any one household unit a part of a food sub-culture; food is just as much about norms, values and conceptions of what makes up a proper meal as it is about eating.⁹⁶ Being confident that it is safe to consume whatever is on the table is therefore basically reflecting trust in the sub-cultural perceptions, routines and strategies of which one is a part.⁹⁷

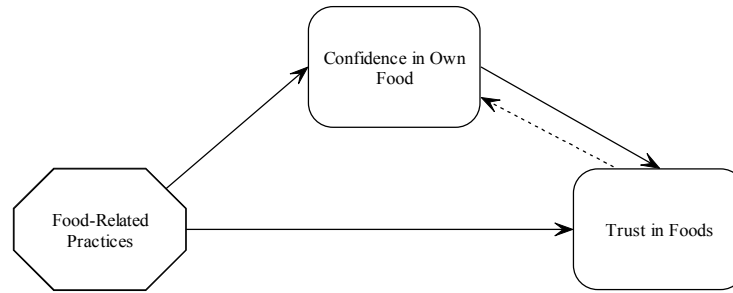
6.2.2 DIRECTIONS OF INFLUENCE

The cultural embeddedness of '*confidence in own food*' is a complicating factor in assessing its relationship with the '*trust in foods*' variable. In chapter 3 we argued that they reflect interrelated phenomena; the more a person trusts food items available in the marketplace, the more likely he is to be confident that the food he actually buys is safe, and vice versa: the more confidence he has in the food consumed in his household, the higher

⁹⁵ Cf. Archer (2000: 261 – 262).

⁹⁶ Cf. Murcott (1995).

⁹⁷ Cf. Kjærnes (1999).

Figure 6.1: Trust model accounting for the theoretical dimension '*food-related experiences*'.

the probability that he also finds a higher number of food items in the market to be safe to eat. With important exceptions — some of which we just mentioned above — the expectation was supported empirically and visualised in trust map II. However, although the map undoubtedly reflects a positive correlation between the two variables, once we try to go beyond the analyses in chapter 3 to attempt more ambitious specifications of the relationship, it is not at all clear what direction the influences run. There are in principle three types of association possible: (i) one's degree of '*trust in foods*' may impact the degree to which one has '*confidence in own food*'; (ii) the variables may be connected in a two-way, non-recursive relationship; or (iii) the level of '*confidence in own food*' may predominantly influence one's degree of '*trust in foods*'. The forthcoming analyses are based on the latter ordering of factors: concrete practices with respect to particular food items bought for the household generate assertions about safety of own food, which in turn is generalised and turned into one of the sources upon which assertions about the market situation are based.

To substantiate the relevance of choosing (iii) and get hold of some crucial implications, consider the graph in figure 6.1 above. Here, a theoretical dimension '*food-related experiences*' is seen as influencing '*confidence in own food*' as well as '*trust in foods*' in general. The '*practice*' dimension should be thought of as collective term for a wide range of food-related events, potentially available as indicators in a dataset. Furthermore, the relationship between the two trust variables is denoted by a solid line pointing from '*confidence*' to '*trust*' as well as a dotted line indicating possible secondary influences running in the opposite direction. It is important to notice that the model does not preclude the existence of multiple sources upon which assertions about food safety are made. To illustrate, some of the variables making up the '*practice*' dimension are prone to influence one or both of the trust variables, as for instance whether or not one has been exposed to unsafe foods. But the framing of the practice, and thus the nature of the influence on trust assessments, will be different for the two types of trust. Likewise, the model could be expanded by considering additional dimensions. Among the candidates we discuss below is the impact of cultural features like trust-formation in primary and

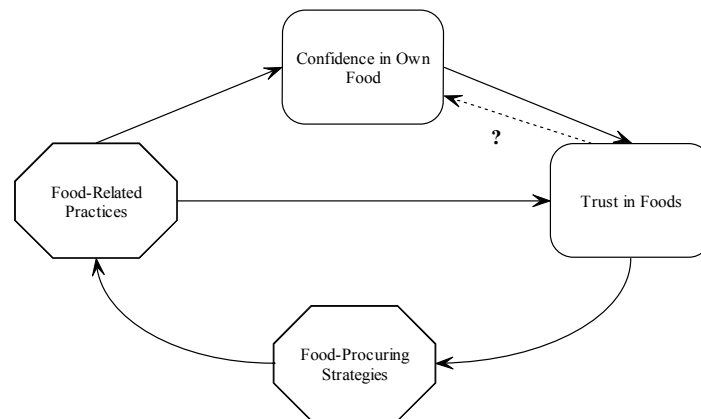
secondary socialisation. Irrespective of what dimension they originate from, such influences have to be modelled by identifying and introducing new variables into the equation — which we eventually are going to do.

As far as the direction of impacts between ‘*confidence in own food*’ and ‘*trust in foods*’ is concerned, a simple point can now be made. Provided that food-related experiences and influences from cultural features are among the references for people’s attitudes towards food, safety assertions are to a large extent constructed within the household context. From such a perspective ‘*confidence in own food*’ appears to come first in time, since important initial assessments are likely to be related to what is actually bought, taken home and consumed. But this is, to be sure, by no means intended as a deterministic statement. Quite the contrary, figure 6.1 explicitly takes into account the possibility of a two-way association between the two aspects of trust. There is every reason to point out that mutual interrelationships with other variables are features that ‘*trust*’ shares with most other socio-cultural phenomena. Sometimes the interconnections are so pronounced or immediate that non-recursive modelling is needed.⁹⁸ But, as indicated by the dotted line pointing from ‘*trust in foods*’ to ‘*confidence in own food*’ we don’t believe this is necessary here.

Again, the occurrence of a food scandal provides us with good illustrations. For instance, it is possible that low levels of market trust following news about a BSE outbreak has the potentials to rendering ones feelings about the meat one has eaten over the years or the beef that has already found its way to the fridge. But, as already pointed out, our empirical analyses do not support the anticipation that this is a major — or immediate — influence. This is not to downplay the possibility that a major food scandal hold the potentials to overthrow any feeling of safety with respect to the food one consumes. Rather, our results are — at least in part — due to the fact that the data are drawn from institutional contexts that are not characterised by an all-encompassing food crisis. Under conditions such as those created by major environmental scandals like Chernobyl one’s ‘*confidence in own food*’ may very well prove to be hyper-sensitive to alterations in ‘*trust in foods*’ levels, upon which consumers find themselves in a social and personal disaster. But neither the preceding nor our forthcoming analyses are based on data from such areas. It follows that the observed trust relations must be understood and modelled accordingly.

⁹⁸ A hypothesis about a mutual, two-way causal relationship between the two variables could be modelled by subjecting the data to structural equation path analysis. However, modelling non-recursive relationships is quite complicated, sometimes leading to unsolvable equations systems. Moreover, the technique implies to make a number of presuppositions about the structure of reality that might not hold. Above all, the relevance of such models cannot be tested. Cf. Hanushek & Jackson (1977: 246 – 281), Skog (1998: 327 – 330). The use of path analysis within the social sciences — including the implementation of recursive models — has also been subjected to heavy critics from statisticians. Cf. Freedman (1992). Given the substantive argumentation in the following pages, we feel comfortable in abstaining from modelling a non-recursive model for the trust in food safety phenomenon.

Figure 6.2: Modelling feedback effects.



For the countries from which our data are drawn we would like to suggest that the case for strong, non-recursive associations may emerge from a misspecification of the trust phenomenon. Broadly speaking, the proposition implies that ‘*confidence in own food*’ generates assertions about ‘*trust in food items*’ available in the market which in turn feeds back on assertions about safe eating at home. In other words: one set of attitudes are expected to influence another set of attitudes. But evaluations of trust are not likely to exist in a vacuum of mutual reinforcement. Rather, we should focus on what are the references for the construction of such assertions. In particular, we should take seriously into account that ‘*confidence in own food*’ is embedded in specific practices and culturally conditioned features like strategies, networks and other resources — i.e. various forms of economic, social and cultural capital. Again using food crisis as an illustration, whenever such an event occurs, we have seen that ‘*trust in foods*’ levels are likely to fall due to poor institutional performance. But for the range of situations covered by our data, this does not seem to be the case for the ‘*confidence in own food*’ variable. Instead, the likely consequence is that one’s food procuring strategies become adjusted to more or less sustain normal levels of ‘*confidence*’.

To the extent that this makes sense, we may very well face a situation like the one displayed in figure 6.2 above: a possible feedback from ‘*trust in foods*’ onto ‘*confidence in own food*’ is mediated through a different set of variables — viz. via adjustments of procurement ‘*strategies*’ and the following food-related ‘*practices*’. This, in turn, most notably implies that the feedback influences are subjected to — perhaps considerable — time lags due to trial and error of new ways of procuring safe foods. In as much as this makes sense, the magnitude of the direct impact from ‘*trust*’ to ‘*confidence*’ is probably rather small. Future follow-up studies will pursue the assertion.

The remaining type of possible relationship between the two variables is that the major direction of influences the opposite, i.e. predominantly running from ‘*trust in foods*’ to ‘*confidence in own food*’. The idea involved is simply that the “situation at home” is institutionally conditioned. Whereas the above discussion provides valid counter-arguments, we would like to add that the proposition is theoretically weaker than the alternative positions because a given level of market trust tends to be left unaccounted for. It could of course be argued that the individual makes up his mind based on his own personal market experiences and general influences such as public information, upon which he at the end of the day evaluates the safety of the food he has bought and taken home to consume. This is the ‘*economic man*’ in action: the consumer as a more or less independent customer. But the case for such an individualistic approach is not strong.⁹⁹ The sociology of consumption has instead emphasised the need to understand market practices within a social frame, with clear references to everyday life.¹⁰⁰

Thus, in the forthcoming analyses we shall treat ‘*trust in foods*’ as the effect variable and place ‘*confidence in own food*’ as the independent side of the equation. However, committed as we are to keeping models simple, we shall leave the inclusion of food-related ‘*experiences*’ and procurement ‘*strategies*’ for future studies. Instead, we shall content ourselves with focussing on indicators of the cultural dimension.

6.3 TRUST IN PEOPLE

As pointed out by Mishler and Rose, “.. *cultural theories begin with the assumption that trust is an emergent property linked to basic forms of social relations*”.¹⁰¹ The main idea is as follows. From early childhood onwards, we learn trust and distrust through practice; in encounters with others we experience specific regimes through how people act towards us and how they react upon our own behaviour. Trust is therefore an essential element in primary socialisation and continues to be so throughout secondary socialisation processes. From this emerges a generalised understanding of trust, allowing for tacit confidence and routinised practices as well as reflexive assertions and explicit choice.

As Kaase argues, trust in other people is a social capital, embodied as it is in relations between persons.¹⁰² But the relationships in question are indeed complex. The perhaps most obvious type of process in which trust in others may develop is the ongoing inter-

⁹⁹ Cf. Archer (2000), Warde (2002).

¹⁰⁰ Cf. Warde (2002), Gronow & Warde (2001), Tomlinson & McMeekin (2002).

¹⁰¹ Cf. Mishler & Rose (2001: 34).

¹⁰² Cf. Kaase (1999: 2 – 4).

actions with people in one's immediate social surroundings — such as family members, friends and colleagues. From an individual point of view, it generally makes sense to expect that a given person's amount of confidence depends on the actual outcomes of these processes over time. But it is far too simplistic to restrict the emergence of interpersonal trust exclusively to face-to-face encounters with people who are closely related to one another socially. For a start, living in a society means that we are extensively interacting with strangers on a regular, semi-regular or random basis, like when we act as buyers or sellers in a market. Moreover, a lot of our communication with others takes place indirectly. The role of media in modern societies is a good example. But people are also indirectly connected in numerous other ways. Again, the market setting provides us with a pertinent illustration. Buying food items, for instance, makes us the terminus of complex production and distribution chains engaging high numbers of persons who are typically strangers to us and often spread across several regions, countries and even continents. Any extension from this line of reasoning clearly indicates that the list of trust-generating contexts could be made very long.

Due to its many sources and potential inputs, interpersonal trust appears as a generalised “summary codex” by which the individual can interpret his social surroundings and seek guidance in everyday practices. As such, it stretches far beyond any given individual's personal relations with *‘known others’*. And precisely because of that, generalised trust has the potentials for a much wider social impact because, as pointed out by Freitag, “.. *it can act as a social lubricant that enables a variety of forms of social interaction and cooperation*”.¹⁰³ In as much as that is the case, it also means that we must seriously take into account that interpersonal trust is a relational phenomenon and as such a property of populations rather than detached individuals. Thus, whereas a focus on individual practices leads us to see trust in other persons as rooted in interaction processes of various kinds, an emphasis on its relational aspect makes us aware that, at any one point in time, interpersonal trust is conditional for future actions as a generalised sentiment accessible to any member of a given community. It is this that makes it a social capital in its own right, and a key to understand other trust phenomena like for instance trust in food.

Theoretically, the cultural approach to trust presupposes the existence of a double set of aggregate level mechanisms. First, there is what Mishler and Rose refer to as *‘spill-overs’*: put boldly, people who trust one another are more likely to start cooperating than less trustful persons. Typically, cooperation enhances the development of higher-level interpersonal trust and entails the potentials to converging into institutionalised practices. This does not mean that confidence in people is the same as trust in institutions. It does, however, imply that interpersonal trust to some extent is conditional for system trust. Secondly, there are the *‘spill-down’* mechanisms, whereby institutionalised practices and

¹⁰³ Cf. Freitag (2003: 221).

shared sentiments constrain primary and secondary socialisation processes and contribute to the construction of trust perceptions. Taken together, the ‘*spill-over*’ and ‘*spill-down*’ processes typically constitute stable trust-regimes that vary across institutional settings — e.g. from country to country.¹⁰⁴ This does not mean that the mutual reinforcing effects of the two sets of mechanisms render these regimes into watertight bulkheads insusceptible of change. But the cultural approach nevertheless establishes trust in others as a deeply rooted relational quality that is only likely to change slowly over time — perhaps predominantly traceable in a cross-generational perspective.

A widely used indicator of generalised, interpersonal trust — also repeated in our survey — is this:

Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people?

- (i) Can be trusted;
- (j) Can’t be too careful;
- (k) Don’t know;

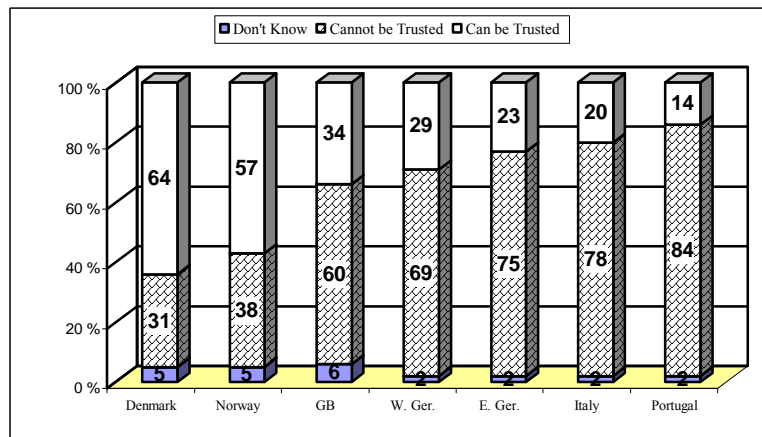
In surveys, the measurement tool registers the respondents’ level of generalised trust, where those who choose the (a) option are defined as trusting and those who opt for one of the other alternatives are not. Based on this, institutional contexts — i.e. countries in our case — marked by high amount of interpersonal trust are identified by higher proportions of trustful persons in their respective populations. With regards to the analysis of the food system it is expected that the variable addresses a crucial facet of the safety phenomenon, viz. that the production and distribution chain behind each food item is made up by people that typically appear as strangers to most consumers, and that dealing with it may presuppose the existence of a minimum level of interpersonal trust — tacitly or explicitly. The division between the (a) options on the one hand, and (b) and (c) alternatives on the other hardly reflects such a threshold. Still, we expect trustful persons, as they are identified in the survey, to consider more food items in the marketplace safe to eat.¹⁰⁵

The empirical results from widespread usage of this indicator since the late 1950’ies displays patterns that are very much in line with what could be expected from the pre-

¹⁰⁴ Cf. Mishler & Rose (2001: 34).

¹⁰⁵ We should, of course, be careful about making too bold statements as to the consequences of scoring high or low on this variable. For instance, rather than not we would expect that holding the opinion that one “can’t be too careful” typically triggers an urgent need to single out those ‘*others*’ that in fact can be trusted in a basically insecure world. If so, social settings marked by a lack of generalised interpersonal trust are not necessarily environments ruled by unpleasant levels of suspicion, scepticism and precaution. However, the data do not permit us to test that.

Figure 6.3: General Trust in Most People. Weighted Results. Percentages. 2002. N = 1000 (Denmark), 1004 (Norway), 1000 (W. Germany), 1000 (E. Germany), 1565 (GB), 2006 (Italy) and 1000 (Portugal).



ceding discussion. Above all, there is every reason to point to the high degree of stability in proportions of trustful persons over the years. Also, taking into consideration the modest changes into the direction of more trust that, after all, have taken place, the rank order of the countries predominantly remain the same over time; for decades on end, the highest proportions of trustful persons are found in the Nordic countries whereas the Latin countries dominate the lower part of the distribution.¹⁰⁶ The results emerging from our own survey are very much in line with previous research. As figure 6.3 above shows, the highest amount of interpersonal trust is found in the two Nordic countries, where about 60% of the population feel confident in this respect. At the other end of the distribution, the lowest proportions are found in East Germany and the two Southern European countries, including the “classic” case of distrust — Italy — where only some 20% claim that most people can be trusted.¹⁰⁷ The share is even lower in Portugal: only some 14%. In-between the two extremes are GB and West Germany, where about 30% express confidence. The pattern has also been tested in a simple regression analysis. Starting out at the lower end of the scale, the test results show that Portugal is significantly different from Italy and East Germany, both of which in turn have significantly lower levels of trustful consumers than West Germany, GB and the two Nordic countries.¹⁰⁸ In passing, let us note that very few respondents opt for the “don’t know” alternative.

¹⁰⁶ Cf. Freitag (2003: 221), Kaase (1999: 5 – 7).

¹⁰⁷ The classical analyses are found in Putnam (1993) and Gambetta (1988).

¹⁰⁸ The test (not shown) is based on a logistic model where the dependent variable scores 1 for the response alternative (a) above and 0 otherwise.

Given its embeddedness in socialisation processes, '*trust in people*' is going to be the exogenous variable in our models; as argued by the cultural approach, generalised trust obviously comes first in time.

6.4 ADDITIONAL INDEPENDENT VARIABLES

Since the main purpose of this chapter is to theoretically place the various trust dimensions encountered in previous chapters, we delimit the forthcoming analyses to include two more independent variables, viz. the pessimism and truth telling indices. Both are indicators of institutional performance, the former assessing the long-term developments within the food system and the latter whether or not actors positioned within it are believed to comply with ongoing standards of decency in case of a scandal. As is readily seen, the sources from which these evaluations are drawn are different from both the '*trust in food items*' and '*confidence in own food*' assessments, both of which are largely based upon the food items themselves. The new variables, however, address general aspects of the system that are expected to represent additional contributions to the construction of trust.

It follows that the new variables are not as clearly associated with personal experiences. Of course, they might: exposed as they are to market mechanisms people are potentially liable to personally experience dishonest producers or products whose qualities have deteriorated or improved over time. However, evaluations of this kind may just as much depend on third-party sources like the public debate or dominating opinions in ones social environment. This is well illustrated by the pessimism indicator that is supposed to summing up developments over a twenty years time span. As pointed out in chapter four, many respondents are too young to be able to base their evaluations on personal experiences. So, either they have a much shorter period in mind, or base their evaluations on third-party sources — or combine the two.

In models where '*trust in foods*' is the dependent variable and '*trust in people*' is exogenous, '*pessimism*' and '*truth telling*' clearly enter the equation as intermediary variables. In analyses where also '*confidence in own food*' is included, this variable also enters the equation as intermediary. Moreover, in accordance with what we have done in previous chapters, in such a model both indicators on institutional performance are treated as exogenous with respect to '*confidence*'. The implication is that institutional performance is seen as external influences with the capacity to impact food-procuring activities. Of course, assertions about whether institutional actors are truth tellers or not, or whether long-term trends are going to the worse or not, may very well be based on personal experiences in food-related activities, in which case it could be argued that '*confidence in own food*' come first in time. For instance, twenty years of shopping for meat could

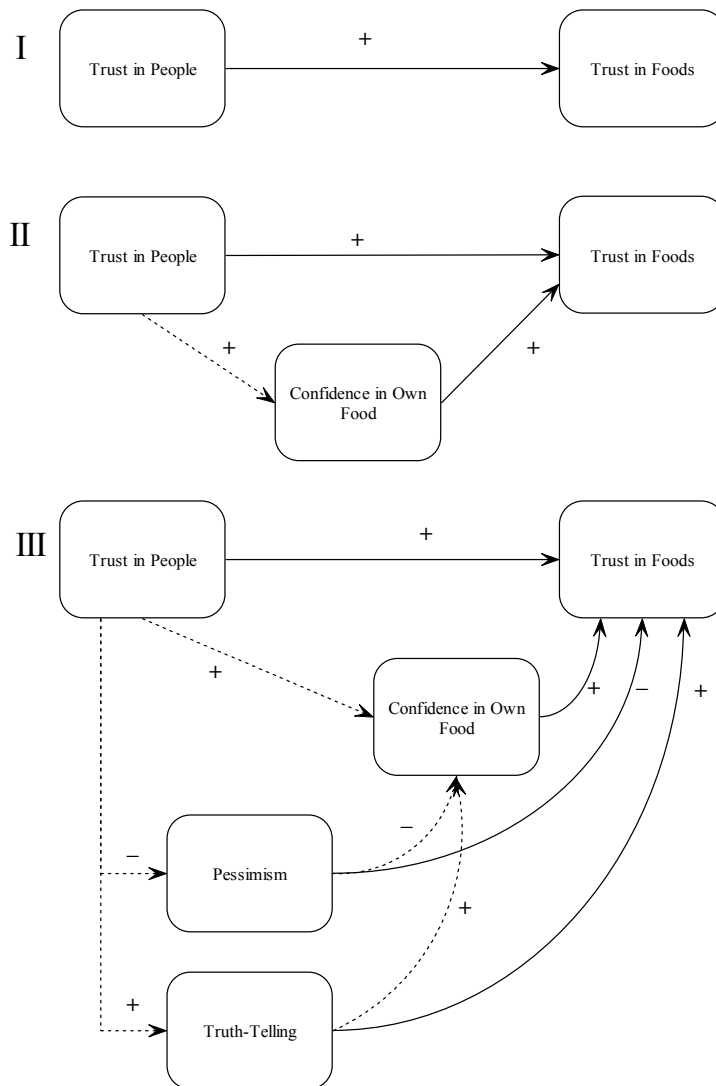
make the consumer aware that the pre-packed items of today hold a lower quality than the produce from the local butcher, thus nourishing growing pessimism about long-term quality trends. Still, many other references also impact the construction of such evaluations — like for instance general sentiments in a population or impressions from the public debate. This is not the least evident by the fact that even the youngest of our informants answer the survey question, in spite of not having had time to make twenty years of personal experiences as food market actors. We therefore believe that the essence of ‘*pessimism*’, as we measure it, predominantly reflects generalised impressions of this kind. As for ‘*truth-telling*’, the argument is probably less ambiguous: such attitudes are probably only modestly based on personal experiences with particular foods, but all the more responsive to events “out there” as they for example appear in the public discourse.

With this we turn to the empirical analysis.

6.5 MODELLING ‘TRUST IN FOODS’

The analytical steps necessitated by the discussion so far are best illustrated by the help of a graphical display. As shown in figure 6.4 below we intend to proceed in three steps. The first and simplest one is a bivariate model, in which the dependent ‘*trust in foods*’ variable is regressed on the exogenous ‘*trust in people*’. In the next step, ‘*confidence in own food*’ is added as the first intermediary variable. Finally, in the third step the ‘*pessimism*’ and ‘*truth telling*’ indices are included in the model. As just pointed out in section 6.4 we treat both of them as intermediaries, but don’t specify their positions relative to the ‘*confidence in own food*’ variable. The plus and minus signs in the figure indicate whether the relationships in question are positive or negative. Following our notation practice from previous graphs, solid lines indicate modest to strong impacts while dotted ones symbolise weak effects. This differentiation is based on an overall impression from the empirical analyses below.

Figure 6.4: Models of 'Trust in Foods'.



The stepwise procedure implements an analytical structure whereby we proceed from the more fundamental cultural dimensions of confidence to trust based on institutional performance. An important feature of our analytical procedure is that all three models are to be successively implemented onto all seven national sub-samples. This means that the effects of the variables included in models I through III are controlled for socio-cultural differences across geographical areas. It also implies that possible interaction effects between the various countries and any of the independent variables covered by the analyses are automatically accounted for.

Table 6.1: Trust in Foods. Linear Regression. Unstandardised Coefficients. 2002. N = 932 (Denmark), 948 (Norway), 969 (W. Germany), 965 (E. Germany), 1435 (GB), 1910 (Italy) and 973 (Portugal). ^{a)}

Model	Variables	Denmark	Norway	W. Germany	E. Germany	G.B.	Italy	Portugal
Model 1:	Constant	32.0***	25.2***	17.3***	19.0***	49.1***	17.9***	29.2***
	Trust in Most People	5.4**	10.8***	5.0***	6.8***	6.0***	6.9***	15.7***
	Adj. R ²	.006	.036	.016	.020	.010	.017	.059
Model 2:	Constant	28.8***	18.9***	15.4***	16.6***	46.6***	16.1***	28.9***
	Trust in Most People	2.7	7.3***	3.3*	4.1**	5.1***	4.2***	15.4***
	Conf. in Own Food	14.3***	14.6***	7.9***	10.2***	5.7***	17.1***	3.8
	Adj. R ²	.055	.099	.046	.073	.019	.095	.060
Model 3:	Constant	29.9***	16.9***	18.3***	17.1***	44.8***	15.4***	31.6***
	Trust in Most People	2.4	6.5***	1.6	2.1	3.9**	2.4*	11.3***
	Conf. in Own Food	13.5***	12.2***	6.7***	8.5***	4.3**	15.5***	2.9
	Pessimism Index	-0.08*	-0.08*	-0.2***	-0.1***	-0.1***	-0.07***	-0.2***
	Truth-Telling Index	0.04	0.2***	0.2***	0.2***	0.2***	0.2***	0.3***
	Adj. R ²	.058	.120	.129	.136	.071	.148	.184
Index Means		35.8	31.2	18.8	20.7	50.8	19.4	31.5
Cronbach's Alpha		.8830	.8562	.7413	.7374	.8410	.7863	.7568

*** = p<.001 ** = p<.01 * = p<.05

a) **Variable definitions:** *Trust in People*: A dummy scoring 1 for “can be trusted”, 0 otherwise. Cf. chapter 6.3. *Confidence in own food*: A dummy scoring 1 for “High degree”, 0 otherwise. Cf. chapter 3.5. *Pessimism*: Additive index made up by 5 dummy indicators of food issues, each scoring 1 for “worse” and 0 otherwise. Cf. chapter 4.4.2. *Truth Telling*: Additive index made up by 8 dummy indicators of institutional actors, each scoring 1 for “whole truth” and 0 otherwise. Cf. chapter 5.4. *Trust in foods*: Additive index made up by 12 food item indicators, scoring 1 for “very safe” and 0 otherwise. Cf. chapter 3.2.2. *Index means*: Calculated as the mean of the predicted average scores for each geographical area. Cf. table 3.3.

Yet another advantageous feature is that a stepwise procedure of the kind proposed here allows us to identify possible indirect effects — in this case running from the cultural dimensions of trust via successively increasing institutionally based indicators onto ‘*trust in foods*’. As it turns out, most of these effects are weak. This comes to light in figure 6.4 by the fact that the paths are made up by at least one dotted line. We shall of course return to discuss the implications of such results in due time.

Table 6.1 above gives the analytical results for models I through III for all six countries. Each of these models is discussed in turn below.

6.5.1 MODEL I

To be sure, let us start out by repeating the essential features of the dependent variable. ‘*Trust in foods*’ is an additive index made up by 12 dummy indicators of safety related to as many specific food items, all scoring 1 if the given item is considered “very safe” to eat and 0 otherwise. Each individual score is divided by 12 and multiplied by 100 to produce a variable that varies between 0 and 100 index points. Needless to say, scoring 0 means that none of the twelve food items are regarded as “very safe” to eat while a score of 100 implies that all of them are. An advantage with this scale is that the variable lends itself to interpretation in terms of percentages; for instance, a respondent scoring 10 on the index would be a person who considers 10% of the items as “very safe” to eat. Let us also note that one food item amounts to $100/12 = 8.33$ index points. The bottom part of table 6.1 reproduces the mean index scores within each national setting. The lowest averages are found in West Germany and Italy while the highest are recorded for GB.¹⁰⁹ The latter country is the only one where on the whole more than 50% of the food items are considered “very safe” to eat.

The only independent variable in model I is ‘*trust in most people*’. As pointed out in section 6.3, it basically reflects the extent to which respondents in different national settings have trust in people who are not known to them personally. In other words, the variable neither refers to close relationships like family bonds and friendships, nor to systemic trust; one may perfectly well have confidence in friends, relatives, neighbours, institutions and systems even though the same does not apply for ‘*people*’ in general. Rather, ‘*trust in most people*’ reflects a generalised, interpersonal trust, a quality that evolves through primary and secondary socialisation processes to constitute a fundamental guideline in social interaction. Thus, the model presupposes a very general foundation for trust that goes far beyond food itself.

Generalised trust in people is believed to be a lubricant in many social contexts. As for assertions about food safety, we expect that

H₁: Trustful persons are likely to have higher levels of trust in foods

As measured in our survey, the hypotheses would be supported by the data if trustful persons on average consider more food items in the marketplace safe to eat than do non-trusting people. As we see in table 6.1, this is indeed the case. For all national settings, the coefficients for ‘*trust in most people*’ are positive and statistically significant, estimating the mean difference between trustful and the non-trusting persons to be typically a

¹⁰⁹ Cf. chapter 3.2 for a more detailed discussion of the ‘*trust in foods*’ variable.

little less than one food item.¹¹⁰ The explained variances are relatively modest, however, indicating that the dependent variable is more sensitive to other — and as we shall see: other types of — variables than deep-structured cultural features. Still, precisely because of its general — not to say: diffuse — character, it is well worth noticing the significant spill-over impact that interpersonal trust has on specific and socially distinct topics such as assertions about food safety. Moreover, the fact that the effects are robust even when we continue to include more variables into our models suggests that we might be facing an important, underlying — perhaps predominantly quiet-working — mechanism in the construction of trust perceptions.

The most striking results in model I are the much higher impact of interpersonal trust in Norway and Portugal. These effects appear as even more outstanding when they are compared with the outcomes for the countries that culturally, historically and institutionally resemble them the most; viz. Denmark and Italy respectively. For in these settings, the effects of interpersonal trust are only about half the size. Obviously, given the large differences in institutional conditions in the four countries, the explanations are likely to be different, too. In as much as our discussion in section 6.3 makes sense, at least some of the differences are bound to emerge from variations in social capital across national settings. But beyond that, since the coefficients actually quantify spill-over effects from interpersonal trust onto trust in foods, additional and more detailed explanations should be sought for in cultural norm systems and national-specific characteristics of the food institutions involved.

Starting out in Norway, this is a context that is traditionally marked by high levels of trust. As we have seen in previous chapters, it materialises in many aspects of life such as assertions about food safety (figure 3.4), truth telling (table 5.4) and interpersonal trust (figure 6.4). Other analyses show similar results with respect to institutions¹¹¹ and the impact of social-democratic values such as social equality and public commitment to keep unemployment and poverty at a minimum.¹¹² From a general point of view, it might be argued that the high levels of trust reflect an objective reality. Norway is a small-scale and only moderately urbanised society where people are typically living in easy-to-read, everybody-knows-everyone communities. Compared to other countries including those in the data-set, there are relatively modest socio-economic divisions, little poverty and

¹¹⁰ Thus, whereas the coefficients are estimates of the mean difference between trusting and non-trusting consumers, the constant refers to the average percentage of foods considered as ‘*very safe*’ to eat by those who belong to the zero-category of the independent variable — viz. the non-trusting consumers. A qualitative interpretation of the constant presupposes that there are observations at the zero-points of the independent variable(s). As we move from the simple model I to the more complex models II and III this may not be the case. If so, the value of the constant is purely technical.

¹¹¹ Cf. Listaug & Wiberg (1995), Rothstein (2000).

¹¹² Cf. Brox (1988).

low criminal rates. Furthermore, at the political level Norway is characterised by a high degree of stability, little corruption, accessible politicians and decades of steady developments towards higher standards of living and more welfare. Of course, there are also parallel trends that do not encourage trust. For instance, crime is on the rise both in terms of frequency and severity, and systems occasionally fail to deliver what is expected from them — not only in the food sector but also in other vital areas such as health and economic stability; over the last decade social divisions have increased, and life has become more difficult for a growing proportion of the population. Still, at a general level the institutional and social conditions in Norway predominantly support trust-generating processes, including those leading to trust in other people. Above all, the Norwegians' relaxed attitude towards the social and political systems as such should be emphasised.

Looking at the results for Norway, the '*trust in most people*' coefficient quantifies the mean difference between the trustful and the non-trusting Norwegians with respect to trust in foods. Referring to figure 6.4, both categories are large, representing 57% and 43% of the population, respectively. Thus, the issue of interpersonal trust reveals a polarisation between two groups of almost equal sizes, responsible for a difference in trust in foods corresponding to about 1.25 items in favour of the trusting.¹¹³ This, however, does not mean that the non-trusting are characterised by mistrust. Quite the contrary, given the institutional conditions of the Norwegian society, we may rather assert that they — although not displaying high degrees of interpersonal trust — still possess high levels of other types of trust. In other words, it makes sense to interpret the coefficient as an estimated difference between two basically confident sub-populations.

Moreover, given the specificities of the Norwegian institutional context, the independent variable in model I probably sums up something like the prototype of a generalised interpersonal trust: within the frames of adequate caution '*other*' persons are simply trusted. In as much as that is the case, the spill-over effect from '*trust in most people*' onto '*trust in foods*' emerges from a combination of rational routinisation of everyday complexity and a corresponding lack of differentiation of trust relations. However, although such simplifications are regarded as necessary to enforce social action,¹¹⁴ it cannot be precluded that a certain portion of naivety may also be a part of it. But whatever the allocation between the above mentioned elements may be, once a person has generalised his trust in others, it might be difficult to break away from it and be sensitive to signals that point in different directions.¹¹⁵ This could prove especially difficult whenever

¹¹³ Since one item corresponds to 8.33 index points, a coefficient of 10.8 should amount to about 1.25 food items.

¹¹⁴ Cf. Berger & Luckmann (1984).

¹¹⁵ Cf. Kjærnes (1999), Kjærnes & Dulsrud (1998).

there is a large proportion of the population sharing the attitude, indicating a broad social consensus about solutions and underlying values.

Many of the above characteristics may be found in the Portuguese context, too. Still, it makes sense to emphasise quite different features of this setting. Politically, Portugal was a totalitarian society up till — in a cultural perspective — recently. As we know from most other countries under authoritarian rule, such regimes do not encourage trust processes, neither with respect to systems nor other people. Following a shift to democracy and subsequently to EU membership, recent developments have been marked by rapid changes and institutional re-ordering. So, rather than being characterised by stability and planned progress Portugal is marked by political and social upheaval. Alongside corruption and political scandals, a major part of the population has been left to live in a hand-to-mouth existence or just above the poverty thresholds, with a minimum of social security beyond one's own social networks. The socio-economic divisions in Portugal have traditionally been large, with a tangible proportion of illiterates on one end of the continuum, and a small but wealthy upper class on the other. This situation still persists.¹¹⁶ Thus, even though substantial improvements are currently attempted by the help of EU programmes, throughout distant and recent history the Portuguese have had little reason to develop extended, generalised trust relations. Instead, they have been left to rely on their personal social circles.

As any other country in the analysis, the '*trust in most people*' coefficient for Portugal quantifies the mean difference between trustful and non-trusting food consumers. As we see in table 6.1, the former group is estimated to consider 15.7% more foods as '*very safe to eat*', which corresponds to a difference of nearly 2 items.¹¹⁷ However, as compared to the Norwegian setting, the mechanisms producing the effects are likely to be quite different. For a start, referring to figure 6.4 the group of Portuguese trustful only amounts to some 14% of the population, leaving us with 86% non-trusting or don't knows. In other words, the group of trustful is a relatively small minority both with respect to interpersonal trust and trust in foods. Moreover, as for the much larger group of non-trusting there are few reasons to expect that they are marked by high degrees of other types of trust. Quite the contrary, on a general level they are probably highly sceptical towards their institutional and generalised social environment. This, in turn, suggests that the coefficient sums up the mean difference between a small group of trusting people and a much larger proportion of the population characterised by mistrust. If so, it could in part account for the large coefficient obtained for Portugal.

¹¹⁶ Cf. Barreto (2000).

¹¹⁷ As usual, 1 food item corresponds to 8.33 points on the trust in foods index. Thus, 2 items amounts to 16.66 index points.

In the Portuguese context, just as in any other institutional setting, interpersonal trust is a matter of simplification and routinisation of everyday life. Consequently, it also reflects a certain lack of reflexivity and elements of naivety. But since the group of trustful is such a clear minority, the strong spill-over effect from interpersonal trust onto trust in foods could reflect several additional, more subtle mechanisms. For instance, the group could be marked by a stronger element of naivety and even ignorance with respect to what goes on in the food sector. Another possibility is that it consists of people that are not much involved in food purchases or cooking — e.g. Portuguese men. A third alternative is that there is a large number of cosmopolitans among the trustful. Besides, we should ask just how far the generalisation of interpersonal trust is taken under institutional conditions such as the Portuguese. Perhaps it is more restricted to local networks rather than reflecting attitudes towards ‘*other people*’ in general. If so, the Portuguese result may reflect genuine nuances across institutional settings with respect to how respondents are relating to the survey question.

However, the results in model I could also be inspected from quite a different angle. Instead of comparing cases that are very different from one another with respect to history, culture and institutional order we can alternatively contrast cases that are more similar to one another in these respects. As for Portugal, Italy is obviously the closest match in the sample. As visualised in figure 6.4, the proportion of the Italian population committed to interpersonal trust is almost as modest as in Portugal: only 20% as against 14% respectively. Still, the Italian coefficient for that variable indicates a rather unimposing spill-over effect from trust in people onto trust in foods: 6.9 index points as against 15.7 in the Portuguese case. Implementing the same comparative strategy for Norway, Denmark stands out as the self-evident candidate for a pair-wise comparison. Again, a similar pattern emerges: the spread of interpersonal trust is about as high in the two countries (cf. figure 6.4), but the spill-over effect onto trust in foods in Denmark is only half of what it is in Norway (cf. table 6.1). It is hard to come up with a good explanation for this. But as a starting point, it tentatively makes sense to direct our attention to the fact that Italy and Denmark both are countries with elaborated food cultures. Also, these are national contexts in which food is a major, recurrent topic in the public discourse. Although there is an obvious need for in-depth follow-up studies on these findings, we would like to suggest that such features could contribute to reduce the differences between trustful and non-trusting consumers because ‘*food*’ extensively becomes a generalised, common experience — and probably also a key element in the construction of individual, social identities.

It follows that, just as the contrast between Portugal and Norway, maximising similarities as a criterion for pair-wise comparisons strongly underlines the need for extended, institutional analyses. For while the contrast between two very different countries — such as Norway and Portugal — makes us generally aware of the impact of cultural and institutional dissimilarities, comparisons between more similar cases challenge us with

the need to inspect in some detail the conditions that are specific to each of the national food systems. Above all, the results suggest that any valid in-depth understanding must evolve from combining general characteristics of the institutional order with specific features of the setting in which trust-generating processes are actually taking place. This, of course, is indeed a highly complex task that goes far beyond the scope of this report. It is, however, a challenge that will be undertaken by our research team in subsequent analyses.

6.5.2 MODEL II

Having assessed the impact of general, cultural features we now proceed to discuss the importance of elements specific to the food institution. The first of these is '*confidence in own food*'. As we have interpreted the variable throughout the report, it sums up individual assessments about the food one is actually buying and taking home to consume. The variable is general in the sense that it is not referring to particular foods like '*meat*' or '*vegetables*'. Yet, it is definitely specific in the sense that it deals with the particular selection of items that ends up in one's home. Just because of that, we are looking at a phenomenon that is closely related to household economy, choice and strategic behaviour as well as to the implementation of cultural and social resources such as knowledge, skills and networks.¹¹⁸ Also, it refers to routinised just as much as reflexive practices. Thus, we may say that the variable reflects the generalised assessment of the outcomes of one's social participation in food-related activities.

Model II in table 6.1 includes '*confidence in own food*' in addition to the '*trust in most people*' variable from Model I. As illustrated by figure 6.4, this enables us to discuss direct, controlled effects as well as indirect influences flowing from '*most people*' via '*confidence*' onto '*trust in foods*'. We shall look at both types of impacts in turn.

¹¹⁸ Cf. sections 3.5 & 6.2.

Direct effects in model II

As for '*confidence in own food*' we generally expect that

H₂: People who are confident that their own food is safe to eat are likely to be more trustful with regards to foods in general.

The hypothesis is based on the fact that most of one's food is typically acquired in markets. It follows that, in as much as one feels good about these products, the generalised assessment of the market situation as such is likely to get influenced in a positive direction. However, as we have argued on several occasions already, there are no logical contradictions involved in making the opposite evaluation; a feeling of safe eating due to the implementation of adequate strategies may of course take place in reasonably reliable as well as in hazardous market environments — at least in the countries making up the actual dataset. The competing hypothesis is therefore that strategic behaviour is explicitly necessitated by and implemented in order to avoid the dangers that loom large in a basically distrusting market environment. In as much as that is the case, we would expect a negative association between '*confidence in own food*' and '*trust in foods*'.

The coefficients for the '*confidence in own food*' variable may be interpreted as the direct effect of belonging to the group of confident consumers, with respect to trust in foods assessments. In other words, for each national context they quantify the estimated mean difference in trust levels between the confident and the non-confident. As is readily seen in table 6.1, H_2 is supported by the data in all but one country, viz. Portugal where the impact of '*confidence in own food*' is statistically insignificant. In the six remaining contexts, however, the mean difference between confident and non-confident consumers ranges from 5.7 index points in GB to 17.1 points in Italy, i.e. an increase in trusted foods varying from a little less than one to about two items. These are all effects controlled for the impact of '*trust in people*'. Let us also notice that the explained variance has risen considerably in all countries except from Portugal — from a doubling in GB to more than nine times as high in Denmark, as compared to model I. The highest R^2 is recorded for Italy, where 9.5% of the variance is explained by the variables in model II. Whether judged by the coefficients or the R^2 , the impact of '*confidence in own food*' seems important.

As for the substantive interpretations of these findings, the sign of the coefficients is a good starting point. Table 6.1 shows that all effects are positive. Had they been negative, high confidence in own food would have been associated with trust in fewer food items. Such a result could only make sense if the group of confident consumers generally perceived the market situation as precarious, and in turn implemented adequate strategies to ensure safe foods in spite of these threats. However, as we have seen this is not the case; in general, those who have confidence in their own food also trust more food items. Several mechanisms may account for this. In particular, since none of the six countries in

our sample have been subjected to anything even near a collapse in society's food supply, '*confidence in own food*' is primarily about adaptations to fluctuations within a system that, after all, offers a comfortable range of alternatives to the consumer.¹¹⁹ Thus, in as much as one feels content about the output of one's food-procuring practices, there is likely to be some spill-over effects from one's own success onto overall assessments about the system as such.

It is tempting to assert that the observed differences are generated in a climate of underlying system trust. After all, as suggested by the constants in model II, even those who neither have trust in people nor the food they buy believe that 15.4% – 46.6% of the food items are safe to eat. But we should not jump too quickly at such conclusions — at least not for all of the seven geographical settings. For a start, none of the variables in the model are direct indicators of system trust. Besides, on an aggregated level we notice that national settings marked by system distrust are apparently capable of generating just as large — or even larger — differences between confident and con-confident consumers as are settings marked by higher levels of systemic trust; here, Italy vs. Norway may serve as a good illustration.

Moving towards the more immediate level of institutional performance, countries going through severe food crises are of course perceived as high-risk markets. By '*severe*' we mean scandalous events that are followed by large fluctuations in demand for the kind of foods that are part of the scandal. Under such uncertainty one's food-procuring strategies may have less pay-offs in terms of confidence; in spite of time-consuming efforts the confident may, in other words, not feel as comfortable as they used to, and the spill-over effects from '*confidence*' to '*trust in foods*' in general may diminish accordingly. In as much as that makes sense, we may assert that countries in which severe food crises have taken place the difference between confident and non-confident consumers may be modest as compared to countries having steered clear of such events. A quick inspection of the coefficients in model II supports the proposition; the effects of '*confidence*' vary from modest to nil in GB, West Germany and Portugal whereas they are high in Norway, Denmark and Italy. This pattern apparently brings the '*confidence*' phenomenon much closer to institutional performance than we have argued previously. We shall therefore control the effects for such indicators in model III.

Still, the link between '*confidence*' and '*performance*' may not be as straight-forward as it seems. The impact of cultural features and national-specific systems of action is at least suggested by the fact that the coefficients vary inconsistently with the observed variations in proportions confident consumers in the six countries.¹²⁰ Consider for in-

¹¹⁹ To illustrate, in case BSE one may adapt to the new situation by either turning to a safer supplier, drawing upon personal networks for safe beef provisions or buying other types of meat but beef. None of these options were blocked in any BSE-area. Cf. Kjærnes (1999).

¹²⁰ Cf. table 3.3 for proportions of confident consumers in each of the six countries.

stance the cases of Italy and Portugal. In both countries, the percentages of confident consumers are relatively modest: 13.7% and 8.1% respectively. Still, the impact of having '*confidence in own food*' is very different: statistically and substantively significant in the former, insignificant in the latter. In Italy, then, there is a minority of confident consumers with trust in own food as well as in foods in general, clearly distinguishing themselves in these respects from a majority of sceptics. The pivot of the Italian data is made up by consumers who trust neither their own food nor other people, and who on average only find 16.1% percent of the foods — or about two items — '*very safe*' to eat.¹²¹ In Portugal, on the other hand, the equally small group of confident consumers is not distinguishing itself from the majority with respect to trust in foods. The pivot of the Portuguese data is made up by the same categories as in Italy, but as we see from the constant the average trust level among these basically distrustful consumers is nearly twice as high: they see an estimated 28.9% of the food items as '*very safe*' to eat. The major reason for the higher score is the widespread trust in fruits and vegetables among the Portuguese.¹²²

Similar interpretations could be spelled out for countries where the groups of confident and non-confident consumers are both large. For instance, the coefficient for Norway is second only to the one found for Italy, thus reflecting a polarisation in the Norwegian population with respect to trust in foods. In GB, on the other hand, no such distinct polarisation exists: the effect is only half of the one recorded for Norway. But in this setting, the level of trust in foods even among non-confident consumers who have no trust in other people is already very high: 49.1 index points. Thus, the two coefficients are not only unlike with respect to magnitude, but also reflect different qualitative situations. In as much as they are due to cultural features and national-specific systems of action rather than adaptations to institutional performances, observed variations in effects of '*confidence*' should be further pursued by looking at variations in shopping practices across national settings. This is the topic of a subsequent analysis.

Having theoretically placed '*confidence*' as the intersection point between cultural and institutional features, its effects should be controlled for both types of impacts. In fact, model II already accounts for the cultural influences that are summed up by the '*trust in most people*' variable. In the next model indicators of institutional performance are going to be included. A procedure, by which additional information about the '*confidence*' phenomenon is obtained, is to study changes from model I to model II, and subsequently from model II to model III. It is to this task that we now turn.

¹²¹ The score for non-confident & non-trustful Italian consumers is given by the constant. Cf. table 6.1.

¹²² Whereas 50.3% of Portuguese consumers find fruits and vegetables '*very safe to eat*', the corresponding percentage for Italy is 30.1%. Cf. figure 3.1.

Indirect effects in model II

Referring to figure 6.4, ‘*confidence in own food*’ is placed as the intermediary variable between ‘*trust in most people*’ and ‘*trust in foods*’. As we move from model I to model II, any change in the ‘*trust in most people*’ coefficient is interpreted as the amount of the effect from this variable that is mediated by ‘*confidence in own food*’. With respect to interpersonal trust, then, ‘*confidence*’ is a possible mechanism by which certain cultural impacts are put across. Whereas the coefficients in model I are quantifications of the gross association between ‘*trust in most people*’ and ‘*trust in foods*’ in seven geographical contexts, the corresponding coefficients in model II are expressions of the net association between the same two variables — in this case relieved from the impact of ‘*confidence*’. Typically, we expect net associations to be smaller than gross associations. However, it may also be the other way around, in which case we talk about released effects. No such impacts are found in any of our models.¹²³

The idea of possible indirect effects may be formulated as follows:

H₁₁: The impact of interpersonal trust is partly mediated through mechanisms generating confidence in one’s own food.

The first point to make is that there is a positive impact of ‘*trust in people*’ onto ‘*confidence in own food*’.¹²⁴ In substantive terms, this means that interpersonal trust tend to increase the likelihood of being confident about the food that is taken home and consumed. In as much as food-procuring practices and subsequent degrees of ‘*confidence*’ is based on socio-cultural capitals such as knowledge, skills and networks, this makes sense. Moreover, from its social-cultural embeddedness the nature of ‘*confidence*’ as a mediating mechanism emerges; underlying, general cultural features are not constants or abstracts, but resources to be accessed in everyday life and actively drawn upon in food-procuring activities. The output of these everyday processes is not only foods as such, but also assessments about them — the items ending up in one’s own household as well as the generalised produce available at the market place.

¹²³ Cf. Hellevik (1992: 12).

¹²⁴ Simplifying matters, the following formula applies: *gross association = net association + indirect effects*. It follows that since both the gross and net associations are positive and that the latter is smaller in absolute value than the former, the indirect effect is bound to be positive as well. Again simplifying matters, the indirect effect is defined as the impact of the exogenous variable onto the intermediary variable times the impact of the intermediary variable onto the dependent variable. In our case, the only way in which the indirect effect can be positive is if the effect of ‘*people*’ onto ‘*confidence*’ is positive (+ times + = +). Strictly speaking, the description presuppose a trivariate cross tabulation with dichotomous variables where the effects are calculated in terms of proportions rather than percentages. However, the fact that our system is a regression model and that the dependent variable is not dichotomous do not render the logic involved with respect to signs.

Comparing the coefficients for *'trust in most people'* in model II with those in model I, we see that once *'confidence'* is included in the analyses the net association between *'trust in most people'* and *'trust in foods'* is reduced by about $\frac{1}{3}$ in countries like West Germany, Italy and Norway. In GB, the reduction is about $\frac{1}{6}$. Whereas the larger bulk of the gross associations remains as direct effects, these $\frac{1}{6} - \frac{1}{3}$ 'rds are the impacts of culture that are mediated through the *'confidence in own food'* variable. In absolute terms, however, it is arguable as to the substantive impact of this mechanism; the reductions only amount to some 1 to 3 index points, corresponding to 12% – 36% of a food item. Still, we would tentatively like to suggest that, according to model II we face a combined impact of *'trust in people'*: a significant, direct influence of general cultural features and modest to weak indirect effect mediated by *'confidence in own food'*. This is especially valid for Norway, and Italy, and to a lesser extent for West Germany and GB.

In Denmark and Portugal the situation is somewhat different. In the former setting, once *'confidence in own food'* is controlled for, the direct effect of *'trust in most people'* is rendered statistically insignificant. At the same time, the R^2 for the Danish sub-sample increases nine-fold. Obviously, confidence-generating features specific to the food institution make a big difference in Denmark, whereas the general cultural characteristics that are summed up by the *'trust in most people'* variable are not. As compared to Norway, the difference is striking. Considering the many common cultural, historic and institutional similarities shared by the two countries, it is quite remarkable that both general and specific features contribute to the explanation of variations in trust in foods in one of these countries and not in the other. We don't have any immediate, good explanations for that. We shall have to await the results from parallel studies of institutional mapping and future quantitative analyses on food-procuring strategies in these settings.

As for Portugal, model II yields opposite results of what is found for Denmark; here, general cultural characteristics as summed up by the *'trust in most people'* variable remain statistically significant whereas the more specific features captured by *'confidence in own food'* does not seem to have any impact at all. Naturally, the R^2 for this analysis remains practically unaltered as compared to model I. Again, no immediate and good explanations are available at this point in time. We have to await further studies on the Portuguese institutional situation.

Finally, let it be mentioned that the graphical display of model II in figure 6.4 is a "generalised" picture primarily based on the results for GB, West Germany, Italy and Norway. In these countries, the impact of *'trust in most people'* onto *'confidence in own food'* is moderate to strong. As for Portugal, no line between the two variables should be drawn. In the case of Denmark, on the other hand, the indirect impact of culture should be marked whereas the line for the direct association between culture and *'trust in foods'* should be omitted.

6.5.3 MODEL III

As demonstrated above, once the difference in trust levels between confident and non-confident consumers in any of the national contexts is compared to that of another, the need to account for features specific to the food institutions in each setting quickly presents itself. As pointed out on several occasions already, the task is approached qualitatively in parallel studies. In the present analysis, we seek to identify general trends by adding two indicators of institutional performance to the model, viz. *'pessimism'* and *'truth telling'*. The results are reported in table 6.1 and visualised in figure 6.4.

The new variables measure different aspects of the impact that institutional performance may have upon trust in foods. Starting out with *'pessimism'*, this is an additive index that sums up generalised attitudes with regards to whether or not five crucial food issues are considered as having gone to the worse over the last twenty years. These are *'prices'*, *'taste/quality'*, *'farming methods'*, *'nutrition'* and *'safety'*. As we have argued elsewhere, the index measures an overall feeling about the direction of long-term developments within the food institution.¹²⁵ In as much as the performance is not believed to be up to par with previous years, consumers are likely to see the situation in the food market as less inviting and perhaps as more risky or even hazardous. Thus, we expect that,

H₃: People who are pessimistic about the long-term trend in institutional performance are likely to consider fewer food items as 'very safe' to eat.

As for the *'truth telling'* variable, this is also an additive index summing up generalised impressions about eight different institutional actors, viz. *'consumer organisations'*, *'food experts'*, *'media'*, *'food authorities'*, *'supermarket chains'*, *'farmers'*, *'politicians'* and the *'processing industry'*. For each respondent, the index adds up how many of these actors are believed to tell the truth in case of a food scandal. Although these actors are quite different with respect to the positions and roles they occupy in the food system, the rank-order of trusted actors are astonishingly similar across national settings.¹²⁶ The kind of trust measured here is perhaps best described as honesty. Moreover, actors who are honest in case of a food scandal could typically be expected to be more honest under normal conditions — whether they are producers, distributors or third-party watch-dogs. Thus, we assert that,

H₄: People who hold many institutional actors as truth tellers are likely to consider more food items as safe to eat.

¹²⁵ Cf. chapters 4.2 & 6.4.

¹²⁶ For discussions and definitions, cf. Chapter 5.3, 5.4 & 6.4.

The results for model 3 reported in table 6.1 strongly support both hypotheses; except for Denmark where only '*pessimism*' is statistically significant at the $p < .05$ level, both variables yield substantive and highly significant coefficients. This is in line of what could be expected from the analyses in chapters 4 and 5. However, this time around we not only get results within a theoretical framework but also estimated effects of each of the two variables controlled for '*trust in people*' and '*confidence in own food*'. Also, in all countries but one — Denmark — the increase in explained variance from model II to model III is substantial. This is especially the case for West Germany, GB and Portugal where the R^2 's are more or less tripled. The best model fit is found for Portugal and West Germany where 18.4% and 13.1% of their respective variance in '*trust in foods*' is explained by the four variables included in the analysis.

On several occasions we have suggested that the consumers' assertions about '*trust in foods*' could be highly sensitive to institutional performance.¹²⁷ For instance, the decline and subsequent rise in trust levels in GB may be due to several severe food crises (poor performance) followed by visible measures to improve the situation (good performance). Correspondingly, the consistently negative picture of West German trust levels could in part reflect that the many steps taken to ensure safer food in this institutional setting have been unsuccessful as trust-restoring measures.¹²⁸ Of course, the data do not permit us to draw any conclusions on this — other types of data are simply needed in order to do that. Still, our results support the assumption about high sensitivity to institutional performance. At least, the coefficients for the two variables imply substantive shifts in predicted values on the dependent variable across observed levels of pessimism or truth telling assertions.

Starting out with '*pessimism*', it distinguishes itself from '*trust in most people*' and '*confidence in own food*' by the fact that it is not a dichotomous but a continuous variable. As defined in chapter 4, it takes on values between 0 and 100.¹²⁹ It follows that the seemingly small coefficients imply potentials for large effects. To illustrate, even in Italy and the Scandinavian countries where the impact of '*pessimism*' is at its lowest, the maximum difference between those who are not pessimistic about a single issue and those who believe that all five of them are subjected to negative trends, is as high as 8 index points or 1 food item — *ceteris paribus*.¹³⁰ In GB and West Germany the corresponding, maximum difference is 10 and 20 index points respectively. In absolute and substantive

¹²⁷ Cf. chapter 6.4.

¹²⁸ Cf. chapter 3.2.

¹²⁹ Cf. chapter 4.4.2.

¹³⁰ For Denmark and Norway the calculation is as follows: the coefficient value $[-0.08 * 100] = 8$ index points. For Italy the corresponding computation yields the value 7.

terms, the most pessimistic consumers in these countries trust between 1.2 and 2.4 food items less than do their non-pessimistic counterparts.

The *'truth telling'* index is also a continuous variable that may take on a similar range of values. But except from Denmark the effect is typically more than double the impact of *'pessimism'*; as we see in table 6.1 the coefficients for the remaining six contexts vary between 0.2 and 0.3. This means that in countries like GB and the two German regions the difference between those who believe that all eight institutional actors are truth tellers and those who assess none of them to be that, is about 20 index points or 2.4 food items. In Portugal the predicted difference is even larger. But here there are very few observations scoring 100 on the independent variable.

Finally, let us notice that the two indicators of institutional performance influence the dependent variable in opposite directions: whereas higher levels *'pessimism'* reduces the predicted number of trusted food items, high scores on *'truth telling'* increase it. Technically, it means that the predicted values are kept well within the range of observed levels of trust. Substantially, it implies that a number of combined evaluations are accounted for. It is, for instance, perfectly possible to be very pessimistic about long-term trends and at the same time be confident that most institutional actors are truth tellers, and vice versa. Any possible combination of values from the four independent variables represents a particular social group with a mean level of trust with respect to foods. Thus, according to model III, trusting consumers are characterised by having trust in people, confidence in own food, few negative evaluation about food issues and belief in many actors as truth tellers. But the estimated scores for comparable groups across national settings may of course vary considerably. To illustrate, predicting values for categories that are more or less in the centre of the distribution, British consumers who trust most people and the food they buy, and at the same time are pessimistic about two food issues but still trust four institutional actors, score 57.9 on the dependent variable, which translates to about 6.9 food items.¹³¹ The corresponding, predicted score for the West German counterpart is 29.9 or 3.6 food items.¹³²

Indirect effects in model III

As illustrated in figure 6.4, there are two sets of indirect effects to explore in model III. One is a possible influence of *'trust in people'* onto *'trust in foods'* mediated by the institutional performance variables. Such impacts would be reflected by a reduction in the *'trust in people'* coefficients in at least one national context. The second set of indirect effects are possible influences of the two indicators of institutional performance via

¹³¹ GB: $[44.8 + 3.9 + 4.3 - (0.1 * 8.33 * 2) + (0.2 * 8.33 * 4)] = 57.9$.

¹³² WG: $[18.3 + 1.6 + 6.7 - (0.2 * 8.33 * 2) + (0.2 * 8.33 * 4)] = 29.9$.

'*confidence in own food*' onto '*trust in foods*'. Due to the way we have organised our analyses, we shall have to reason somewhat differently in order to get to these impacts. Given the particular positioning of the variables in figure 6.4, any reductions in the '*confidence in own food*' coefficients are interpreted as spurious components of the gross effect of '*confidence*' in model II — i.e. the amount of the original impacts that in fact is due to exogenous variables, which in this case are '*pessimism*' and '*truth telling*'. In as much as such components exist, we may also infer that there are some indirect influences from institutional performance mediated by the '*confidence in own food*' variable, although we don't get an estimate of these impacts directly.¹³³ We shall look at these effects in turn.

Starting out with possible indirect effects of '*trust in people*', the hypotheses may be formulated as follows:

H₁₂: The impact of interpersonal trust is partly mediated through mechanisms generating evaluation of institutional performance.

The implication raised by H₁₂ is that the cultural features summed up by this variable are resources that are drawn upon in more or less explicit assessments about institutional performances, which in turn makes a difference with respect to evaluations about food safety. Again, following the same rules as spelled out in the previous section, the impact of '*trust in people*' onto '*pessimism*' is bound to be negative, whereas it is positive with respect to '*truth telling*'. In other words, high levels of interpersonal trust tend to be associated with low degrees of pessimism about long-term trends and high numbers of trusted institutional actors. Since both indicators of institutional performance are included "in one go", any reduction of the impact of '*trust in people*' must be interpreted as the amount of indirect effect jointly mediated by these indicators. However, for most of the national settings the overall impression is that such impacts are relatively weak. Although the Italian coefficient decreases by about 43%, the reductions in absolute values typically amount to less than 2 index points, corresponding to between $\frac{1}{8}$ and $\frac{1}{4}$ of a food item. The exception is Portugal, where the effect of '*trust in people*' changes from

¹³³ Theoretically, as pointed out in section 6.4 there are some arguments in favour of a different ordering of the variables, viz. that evaluations of institutional performance are affected by '*confidence in own food*' and not vice versa — at least in the case of '*pessimism*'. If we had followed that logic, the interpretation of any reduction in the effect of '*confidence*' would have been straightforwardly interpreted as the estimated amount of indirect effect mediated by '*performance*' onto '*trust in foods*'. But since we hold the arguments favouring the opposite ordering of the variables to be stronger, we have to make our interpretations within the frames of spuriousness. Of course, we could have controlled for institutional performance in model II and '*confidence*' in model III, thereby obtaining a quantified expression of the indirect effects. However, we are more comfortable with a theoretically founded model, progressively proceeding from the cultural to the institutional aspects of trust, rather than emphasising the quest for estimated quantities.

15.4 index points in model II to 11.3 index points in model III — or by nearly half a food item.

In general, our analyses suggest that the impact of the cultural features summed up by the *'trust in people'* variable largely takes place outside the realm of assertions about institutional performance. This is partly in line with other studies on trust where traditionally only weak links — if any — are found between the cultural bedrock and variations in assessments about institutional performances.¹³⁴ But unlike many other studies on trust, in the case of food we do find evidence for direct influences both from cultural characteristics and properties of institutions — controlled for one another. *'Trust in foods'* is sensitive, as model III shows, to cultural qualities as well as institutional performances, and thus to tacit features as well as reflexive evaluations.

The second set of indirect effects to explore are possible influences running from the performance indicators via *'confidence in own food'* onto *'trust in foods'*. We generally expect that,

H₁₃: The impact of institutional performance is partly mediated through mechanisms generating confidence in one's own food.

The rationale behind such an expectation is that one's food-procuring strategies are continuously adjusted in accordance with ongoing assessments about institutional performances, thereby contributing to the construction of one of the sources from which evaluations about foods in general are made. Let us as usual start out by noticing that whereas *'truth telling'* has a positive impact on the construction of *'confidence in own food'*, the opposite is true for pessimism: being pessimistic about many issues is associated with lower levels of *'confidence'*. Both of these relationships have previously been displayed in trust maps, and contribute to producing positive, indirect effects via *'confidence'* onto *'trust in foods'*.¹³⁵ But once again, model III in table 6.1 leaves us with the impression that indirect influences are quite modest — also in this case. For all countries, the spurious components of the original effects of *'confidence in own food'* in model II are less than 2 index points. Moreover, since the original effects as expressed by the coefficients in model II are quite large in absolute terms, the relative reductions produced by the inclusion of the two performance indicators are modest as well. Thus, we generally conclude that the impact of institutional performance — which is substantial — by and large is canalised by other mechanisms than those reflected by the *'confidence in own food'* variable.

¹³⁴ Cf. Kaase (1999), Mishler & Rose (2001).

¹³⁵ Cf. figure 4.1 (*'pessimism'*) & figure 5.2 (*'truth telling'*).

6.6 SUMMARY

In this chapter, we have aimed at theoretically placing the trust dimensions relative to one another. The nature of this venture has necessarily been highly explorative. Still, we have proposed an analytical model and proceeded in three steps, starting out in the cultural dimension and ending up with indicators of institutional performance. Throughout the analyses, our dependent variable has been the 'trust in foods' index.

Our analytical procedure opens up for identifying possible direct as well as indirect effects. As for direct impacts, the following hypotheses have generally found empirical support:

H₁: Trustful persons are likely to have higher levels of trust in foods

H₂: People who are confident that their own food is safe to eat are likely to be more trustful with regards to foods in general.

H₃: People who are pessimistic about the long-term trend in institutional performance are likely to consider fewer food items as 'very safe' to eat.

H₄: People who hold many institutional actors as truth tellers are likely to consider more food items as safe to eat.

All of these hypotheses are generally supported by the data also in the most advanced of the three models, which means that the direct effects are statistically significant controlled for one another. However, as we have seen above, there are variations across the six national contexts. Whereas, in the final model, H₁ – H₄ all find support in Norway, GB and Italy, H₁ falls through in Denmark and the German regions. In addition, H₂ must be rejected for Portugal and H₄ for Denmark. We shall return to discuss such variations below.

As for indirect effects, the following hypotheses were proposed:

H_{i1}: The impact of interpersonal trust is partly mediated through mechanisms generating confidence in one's own food.

H_{i2}: The impact of interpersonal trust is partly mediated through mechanisms generating evaluation of institutional performance.

H_{i3}: The impact of institutional performance is partly mediated through mechanisms generating confidence in one's own food.

In general, our analyses suggest that the presence of indirect effects is modest to weak. The strongest support is obtained for H_{i1}, where up to ¼ of the effect of interpersonal

trust is found to be mediated by the '*confidence*' variable. The result makes sense in as much as this phenomenon is partly embedded in the cultural domains of life, and partly reflecting strategic behaviour in institutionally conditioned situations. However, although these indirect effects may seem substantial relative to the original gross association between interpersonal trust and trust in foods, they are quite modest in terms of absolute changes in index scores. This is even more the case for H_{12} and H_{13} ; the links between the cultural and institutional performance domains are rather weak.

Thus, the general conclusion from our analyses is that both culture and institutional performances have an impact on '*trust in food*' controlled for one another but that these influences by and large take place as direct impacts.

There are, however, important variations across national settings. Rather than looking for variations in the effects of individual variables in the rows of table 6.1, we may inspect the columns for national profiles and traceable differences between them. These profiles are highlighted and discussed in the next chapter.

CHAPTER 7

FINAL REMARKS

7.1 INTRODUCTION

In accordance with the report outline presented in section 1.4, chapters 3 through 5 have primarily dealt with more or less descriptive comparisons on various measures on trust across national settings and between social groups within these settings. Besides inspections of univariate distributions on selected trust indicators, these comparisons have been based on a series of analytical models controlling for countries, demographical variables and indicators of social stratification and a limited array of consumer practices. The results are in some detail summarised in some detail in the final section of each of the respective chapters, and need not be repeated here. Still, generalising from all these analyses, the three main findings may be formulated as follows:

- ❖ *There are substantial differences across national settings on most trust dimensions, systematically establishing a pattern in which Portugal and Italy appears as the low-trust countries, and where GB along with the Scandinavian countries stand out as high-trust areas. The German regions are typically found in the middle or lower parts of the trust distributions.*
- ❖ *The impact of social stratification and demography within the seven geographical contexts are rather modest. Gender differences are, however, well worth noticing, women being typically less trusting than men with respect to food.*
- ❖ *The various indicators of trust presented in these analyses are modestly correlated. From this we infer that they are all measures of the same phenomenon, but refer to different dimensions of it.*

Again referring to the outline in section 1.4, the second aim of the report is to explore possible associations between various measures of trust. This has been addressed in chapter 6, where we modelled the trust in food phenomenon as a function of cultural features, social practice and institutional performance. The approach proved fruitful in

that it gave us a far more dynamic perspective on the construction of trust assessments, and left us with models with considerably higher explanatory power than those developed in previous chapters. Although the main results are summed up in section 6.6 and will be further elaborated below, the general findings can be summed up as follows:

- ❖ *Cultural features, social practice and institutional performance all have substantial impacts on assessments about trust in food, controlled for one another. The three dimensions predominantly appear as independent rather than intertwined sources of influences.*

There are, however, important variations across the seven geographical settings with respect to the relative influences of the three dimensions just mentioned. As we progressively developed our models we have time and again come across indications that a more basic ‘system trust’ may in part account for these differences. However, finding that national settings vary from one another is not the same as explaining the variations. Some distinct national trust profiles come out of our analyses together with an ocean of new, emerging and unanswered questions. It is at this point, however, that we have to hand over the relay baton to future researchers.

7.2 NATIONAL PROFILES

Based on the results from the regression analyses presented in table 6.1, we may consider each of the national columns as containing information about a given country’s profile with respect to trust in foods. In as much as that is the case, these profiles represent the initial step towards the identification of qualitatively distinct trust regimes. We shall proceed with the help of pair-wise comparisons.

7.2.1 PORTUGAL AND ITALY

These two are the typical low-trust countries in our sample, geographical areas where consumers on average scoring low on practically every trust indicator we used. As such, they fit well into the picture emerging from other studies on trust focussing on non-food related aspects of the phenomenon.¹³⁶ Therefore, we suggested interpreting the results within the framework of system distrust, perhaps accompanied by the prominence of trust as ‘familiarity’ — i.e. a strong reliance on personal networks in strategic action.¹³⁷ Thus, we would expect that indicators reflecting this aspect of social life are important in

¹³⁶ Cf Mackie (2003), Inglehart (1997).

¹³⁷ Cf. Luhman (1988) Sassatelli & Salvatore (2003).

explaining variations in trust in foods. As is readily seen in table 6.1, the expectation is only partly supported by the data: '*confidence in own food*' is a relevant explanatory factor in Italy but not in Portugal. On this point, the two national profiles clearly diverge from one another. It is hard to explain why, other than suggesting that the personal networks operate differently in the two countries' food institutions. It could also be a question of different success rates: in Italy safer foods could actually be more easily obtained through stable networks, or at least result in a distinct feeling of safety, as compared to Portugal. At this point, the rapid changes taking place in Portugal over the last decade may offer complementary sources of explanation. Besides expanding the models employed in this study, further analyses could profit from using other types of data — for instance those coming out of the parallel work on institutional mapping. The role of personal networks, skills and knowledge will also be subjected to future quantitative analyses based on the TRUSTINFOOD survey.

Another major difference between the two countries is related to interpersonal trust, which seems to have a much higher impact in Portugal than in Italy. Both settings, however, are characterised by small minorities having '*trust in most people*'. The difference in effects may reflect deep-structured cultural diversity as well as variations in social characteristics among those committed to interpersonal trust. Although this goes beyond the institutional focus of our research programme, the finding should still be kept in mind in as much as it could be a clue in understanding the different forms of '*familiarity*' suggested by these analyses.

7.2.2 NORWAY AND DENMARK

The two Scandinavian countries in our sample are perhaps the pair of settings with most features in common, culturally as well as historically and socially. In particular, these are societies traditionally associated with high levels of stability and trust in other people and political institutions. Still, the results obtained by model III are quite different for the two countries. As for the Norwegian sub-sample, all coefficients are statistically significant, and the R^2 is high. In this setting, then, cultural impacts as well as food-procuring strategies and institutional performances are important to the construction of '*trust in foods*'. The overall impression is, in other words, that the model seems relevant, with high degrees of explanatory power with regards to trust in foods. Not so in Denmark. Here, all cultural impacts are caused by mechanisms associated with '*confidence in own food*', which apart from '*pessimism*' is the only significant variable in model III. Also, the model fit for the Danish sub-sample is the lowest of all seven settings: only 5.8% of the variance is explained by the variables included in the analysis.

Again, it is hard to come up with a good and well documented explanation for this. Obviously, also data sources other than quantitative questionnaires should be consulted. However, model III presents us with at least one important clue. Given the premise that

both settings are marked by high levels of system trust and stability in the production and distribution of foods, the most striking result in the two sub-analyses is the dominant impact of *'confidence'* among Danish consumers. Not only is it about the only dimension of importance to the explanation of *'trust in foods'* in Denmark, but once included in the analysis it renders interpersonal trust insignificant in model II while attempts to add more variables in model III only yields minimal amounts of additional explained variance. Both features are unique to Denmark. This strongly draws our attention to mechanisms associated with food-procuring strategies as conditioned by the Danish food institution, which is framed as more distinct from the rest of the society than is the case in Norway. Given the way we have interpreted the *'confidence in own food'* variable throughout the analyses, the difference between the Scandinavian countries is probably found in the particularities of the two food institutions.

7.2.3 GERMANY AND GREAT BRITAIN

The two German regions and GB are all characterised by large and competitive market situations including those for producing and distributing foods. They also have in common the fact that they have been ridden by several severe food crises, among them BSE. Still, throughout our analyses we have seen that they occupy different parts of the trust continuum: whereas GB is marked by high proportions of trusting consumers, Germany is clearly a low-trust area, only surpassed by Italy and Portugal. We have on several occasions suggested that this in part is due to differences in steps taken to correct critical events and restore consumer trust — in other words: a rehabilitation of institutional performances. The analyses in table 6.1 also partly support the proposition. In both countries the amount of explained variance remains low until indicators on institutional performance are included in model III. This strongly suggests a reflexive nature of trust-generating processes in the two settings. Also, *'pessimism'* with regards to long-term trends seems to have a greater impact in Germany than in GB, which could indicate that the steps taken in the latter country have reduced the difference in trust assessments between pessimistic and non-pessimistic consumers.

Still, the most striking finding is the much higher value of the constant in GB as compared to Germany. If we interpret this coefficient as the average effect of all relevant but omitted variables, the high values for GB may be brought about by institutional parameters that are not controlled for in model III. It seems reasonable to infer that additional insight could be achieved by including more indicators on performance. But the difference vis-à-vis Germany may of course also be due to other factors. For instance, a less noticeable distinction is the higher impact of *'confidence in own food'* among the Germans: in model II, the coefficient for this variable is higher for Germany, and at the same time the increase in explained variance from model I to model II is substantial as compared to GB. In a previous chapter, we have argued that many Germans compensate for perceived food hazards by implementing adequate food-procuring strategies, which takes

them to the middle — but not the top — of the European trust distribution. Again, a better specification of contextually conditioned food-procuring strategies would probably increase our understanding of the trust phenomenon.

7.3 EXPLAINED VARIANCE

A short note must be provided on explained variances. If we compare the R^2 's of model III in table 6.1 with those obtained for any of the national-specific analyses in previous chapters, we generally get much higher values this time around. Not that the models as such are directly comparable; they do include different sets of variables and for that reason their R^2 's cannot be set side by side. However, we do notice that the types of variables are different in model III, leaving traditional indicators of individual divisions behind to focus on more general and structurally embedded variables. Also, we notice that the advance in explained variance is due to a theoretical justification and ordering of relevant dimensions.

We believe that this is the way to proceed in future analyses. Obviously, traditional indicators of social divisions have relatively little explanatory power with respect to the trust phenomenon. Rather, a focus on contextual cultural and institutional characteristics seems to pay off.

7.4 FUTURE RESEARCH

Our results suggest that future research should proceed along two paths. Firstly, many of our findings are in need of elaborated and well-documented interpretations. The parallel efforts on institutional mapping in all six countries are going to be a major source of explanatory data. In particular, if we are to take additional steps towards identifying trust regimes in future research, the pair-wise comparisons indicate that we need a better grip on how relations are constituted between consumers and food institutions — including market actors, regulators and others. The obvious challenge is to bring the two types of data together to produce a better understanding of the trust phenomenon as it presents itself in the food domain of society.

Secondly, the most difficult — yet the most exciting — variable in model III is '*confidence in own food*'. Although we have placed it somewhere between '*culture*' and '*institutions*' and interpreted it as reflecting sentiments about the outcome of food-procuring strategies, the juxtaposition does not clearly identify which mechanisms are important for its distribution. Above all, it seems to be a key for developing a better understanding of the trust phenomenon in many of the settings we have studied. Therefore, we suggest

that the quantitative analyses proceed by looking at specific food procuring strategies and the impact they have on '*confidence in own food*' and — in turn — for the construction of '*trust in foods*' in general.

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APPENDIX 1

THE QUESTIONNAIRE

Final edition SIFO 04 December 2003 TRUST IN FOOD SURVEY

Text in CAPITAL LETTERS are interviewer instructions.

Good afternoon. My name is NN calling from XX regarding a survey on food habits. May I speak with the person in the household who is between 18 and 80 years old, and who was the last one to have a birthday?

WHEN THE RIGHT PERSON IS AT THE TELEPHONE: Good afternoon. My name is NN calling from XX regarding a survey on food habits. Could you spare about 15 minutes to answer some simple questions on food consumption?

First we will address some questions regarding consumer practices

1. I will now read to you a list of various food types. For each I would like to know whether you eat them daily, weekly, monthly or more seldom (READ FOOD TYPES)

	Daily	Weekly	Monthly	More seldom	Never	Don't know
a. Vegetables	1	2	3	4	5	9
b. Fresh tomatoes	1	2	3	4	5	9
c. Canned tomatoes	1	2	3	4	5	9
d. Fish	1	2	3	4	5	9
e. Meat	1	2	3	4	5	9
f. Beef steaks and roasts	1	2	3	4	5	9
g. Minced beef, products and dishes from that						
	1	2	3	4	5	9

2. How often do you eat a main, cooked meal outside home (in a restaurant, a café, a fast food outlet or a canteen)? Is it...(READ CATEGORIES)

1. daily,
2. weekly,
3. monthly,
4. more seldom
5. never
9. varies, don't know (DON'T READ)

3. How often do you purchase food for your own household? Is it .. (READ OUT)

1. Never → Go to question 14
2. Occasionally, or
3. Regularly?

(FILTER1: Question 3=occasionally or regularly.)

We will now talk about tomatoes.

4. How often do you buy tomatoes? Is it (READ OUT)

- Never → Go to question 8
- Occasionally
- Regularly

(FILTER2 Question 4=occasionally or regularly)

5. Where do you usually buy tomatoes? Is it in..(READ OUT – SINGLE ANSWER)

1. a supermarket,
2. a fruit and vegetable shop,
3. another small shop,
4. a food market,
5. another way, like a basket scheme, a farmers' market or your own garden or allotment

Instruction: If the respondent says that it varies: Could you please say where you do it most regularly?
Farmers' markets only to be included in countries where these exist

6. Thinking about buying tomatoes, would you say that the following characteristics are unimportant, matter a bit or are important to you? (READ CHARACTERISTICS)

	Unimportant	Matters a bit	Important	Don't know
a) The tomatoes are tasty	1	2	3	9
b) The tomatoes are safe to eat	1	2	3	9
c) The tomatoes are grown in an environment friendly way	1	2	3	9
d) The shop is easily accessible	1	2	3	9
e) The price is low	1	2	3	9

7. Do you prefer imported tomatoes, tomatoes from [COUNTRY], or does it not matter where they come from?

1. imported tomatoes
2. tomatoes from [COUNTRY]
3. doesn't matter
9. don't know

(FILTER2 OFF)

Now we will turn to beef.

8. How often do you buy beef? Is it...(READ OUT)

1. Never → Go to question 13
2. occasionally
3. regularly

(FILTER3 Question 8= occasionally or regularly)

9. When you buy beef, is it usually in.... (READ OUT – SINGLE ANSWER)

1. a supermarket
2. a butcher's shop
3. another small shop
4. a food market
5. or another way (from a farm or through acquaintances)

Instruction: If the respondent says that it varies: Could you please say where you do it most regularly?

10. Thinking about buying beef, would you say that the following characteristics are unimportant, matter a bit or are important to you? (READ CHARACTERISTICS)

	Unimportant	Matters a bit	Important	Don't know
a. the beef tastes good	1	2	3	9
b. the beef is lean	1	2	3	9
c. the beef is safe to eat	1	2	3	9
d. the price is low	1	2	3	9
e. the shop is easily accessible	1	2	3	9

11. When buying beef, would you say that the following safety and quality concerns are unimportant, matter a bit or are important to you? (READ CONCERNS)

	Unimportant	Matters a bit	Important	Don't know
a. The shop or retailer maintains systematic internal hygienic control	1	2	3	9
b. The producer maintains systematic internal hygienic control	1	2	3	9
c. You know the staff personally	1	2	3	9
d. You know where the beef originates from	1	2	3	9
e. Local hygiene inspectors visit the place regularly	1	2	3	9
f. [Country] authorities practice strict hygienic standards for beef	1	2	3	9
g. The EU establishes good food safety regulations for beef	1	2	3	9
h. You know the shop from previous experience	1	2	3	9
i. The beef is labelled with full product information	1	2	3	9

12. Do you prefer imported beef, beef from [COUNTRY], or does it not matter where it comes from?

- 1) imported beef
- 2) beef from [COUNTRY]
- 3) doesn't matter
- 9) don't know

(FILTER3 OFF)

I will now ask you to consider your food purchasing habits in general.

13. Do you often, sometimes or seldom....(READ ACTIVITIES)

	Often	Sometimes	Seldom	Don't know
a. buy products that are a bit more expensive if the taste is better	1	2	3	9
b. shop for food as an enjoyable activity in itself	1	2	3	9
c. check the date stamp	1	2	3	9
d. buy organic products	1	2	3	9
e. stick to special brands	1	2	3	9
f. consider food prices before health and nutritional qualities	1	2	3	9
g. let reports in newspapers, TV or magazines influence your food purchases	1	2	3	9

FILTER 1 OFF

14. As a general impression, do you think the food today has improved, is more or less the same or has become worse, compared to twenty years ago regarding.... (READ ITEMS)

Instruction: This is a question about the general development in society, not personal experiences. Therefore, all age groups should be able to answer.

	Improved	The same	Worse	Don't know
a) the taste and quality of food	1	2	3	9
b) reasonableness of food prices	1	2	3	9
c) food safety	1	2	3	9
d) healthy and nutritious food	1	2	3	9
e) farming methods	1	2	3	9

15. Do you fully agree, partly agree or do you disagree with the following statements about food production and -distribution? (READ STATEMENTS)

1) Fully agree 2) Partly agree 3) Disagree 4) Don't know

- a) Regarding food quality and taste, retailers have a bigger responsibility than the farmers
- b) Consumers have more responsibility than the government in ensuring that food is safe to eat
- c) Ensuring good nutrition is the responsibility of consumers rather than the food manufacturers
- d) Improving animal welfare is more the responsibility of consumers than the farmers
- e) Retailers' have higher responsibility for ensuring reasonable food prices than the European Union
- f) Farmers have larger responsibility than the food manufacturers in ensuring food quality and taste
- g) Thinking about salmonella and other contagions, the retailers have a more important duty than food authorities.
- h) Promotion of healthy diets for consumers should be a public responsibility.
- i) The retailers have more responsibility for food prices than the farmers.
- j) Farmers have a stronger duty than public authorities regarding proper treatment of domestic animals

16. Would you say that the following institutions are very important, quite important or not important in monitoring the safety and quality of food (READ INSTITUTIONS)

	Very important	Quite important	Not important	Don't know
a. Food scientists	1	2	3	9
b. Consumer organisations	1	2	3	9
c. The press, radio and television	1	2	3	9
d. Environmental organisations	1	2	3	9

We would now like to know your own involvement with food issues.

17. Have you been involved in any of the following situations during the last twelve months? (READ SITUATIONS)

1) Yes 2) No 9) Don't know

- Complained to a retailer about food quality
- Refused to buy certain food types or brands in order to express your opinion on a political or social issue
- Bought particular foods or brands in order to encourage or support their sale
- Participated in organised consumer boycotts
- Been member of an organisation that works for the improvement of food
- Taken part in any other kind of public or political action in order to improve the food we buy (contacted a politician, signed up for a petition, supported a campaign with money, distributed leaflets, collected petitions or money, participated in demonstration etc.)

18. To what degree do you think that your voice as a consumer matters? Is it (READ OUT)

- Very little
- Little
- Some
- A lot
- Don't know

19. Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?

- 1. Can be trusted
- 2. Can't be too careful
- 9. Don't know

20. To what degree are you confident that the foods bought for your household are unharmed?

- 1. A large degree
- 2. Some degree
- 3. A small degree
- 9. Don't know

21. Do you think that the following types of food are very safe, rather safe or not very safe to eat?

	Very safe	Rather safe	Not very safe	Don't know
a. Eggs	1	2	3	9
b. Chicken	1	2	3	9
c. Pork	1	2	3	9
d. Fresh fruits and vegetables	1	2	3	9
e. Fresh tomatoes	1	2	3	9
f. Canned tomatoes	1	2	3	9
g. Beef	1	2	3	9
h. Organic beef	1	2	3	9
i. Sausages (instruction if needed: for dinner)	1	2	3	9
j. Burgers from a fast food outlet	1	2	3	9

k. Low fat products	1	2	3	9
l. Restaurant meals	1	2	3	9

22. Imagining that there is a food scandal concerning chicken production in [COUNTRY]. Do you think that the following persons or institutions would tell you the whole truth, part of the truth, or would hold information back? (READ OUT)

	Whole truth	Parts of the truth	Hold information back	Don't know
a. Press, television, and radio	1	2	3	9
b. The processing industry	1	2	3	9
c. The supermarket chains	1	2	3	9
d. Farmers	1	2	3	9
e. Consumer organisations	1	2	3	9
f. Politicians	1	2	3	9
g. Public food authorities	1	2	3	9
h. Food experts	1	2	3	9

23. Do you fully agree, partly agree or do you disagree with the following statements? (READ STATEMENTS)

1) Fully agree 2) Partly agree 3) Disagree 9) Don't know

- Safe food is a prime concern among the retailers
- Food manufacturers are more concerned about making money than about the quality and taste of the foods they sell
- Farmers' pursuit of production efficiency does not harm animal welfare
- Food authorities are more concerned about regulating prices than about protecting consumers from hazardous foods
- The media exaggerate food problems to increase the number of viewers or readers

24. Would you say that the following food issues are an important problem in our society, not very important problem or no problem at all? (READ ISSUES)

	Important	Not very	No problem	Don't know
a. mad cow disease	1	2	3	9
b. food poisoning, such as a Salmonella	1	2	3	9
c. GM foods	1	2	3	9
d. animal welfare	1	2	3	9
e. pesticides	1	2	3	9
f. additives (like preservatives, colouring)	1	2	3	9
g. food allergies	1	2	3	9
h. unhealthy eating	1	2	3	9
i. unreasonable food prices	1	2	3	9

Finally, we would like to ask some background questions about your situation.

25. What is your birth year? 19__ __

26. How many persons live in your household, including all children?

__ __ persons If single person household: Go to question 29

(FILTER4: If more than one person)

27. How many are persons younger than 18 years old? ___ __ persons

(FILTER4 OFF)

28. What is your highest completed educational level?

1. Basic 7 years or less
2. Intermediate 8-10 years, vocational training
3. 11-13 years Secondary (high-school)
4. University low level - 1-3 years
5. University high level – more than 3 years
9. No answer

29. Which of the following occupational descriptions suits your current situation the best? Are you...(READ OUT – SINGLE RESPONSE)

1. Working, in private sector
2. Working, in public/government sector
3. Working, as self-employed (including farmers and fishermen)
4. Pensioner
5. Pupil/student
6. Unemployed
7. Full-time housewife/home worker
9. No answer

30. Do you live in a city, in a town or in the countryside?

1. In a city (>100.000 inhabitants)
2. In a town (> 10.000 inhabitants)
3. In the countryside/rural district

31. RECORD Region Region (county/municipality recorded)

32. RECORD Gender

1. Male
2. Female

