

"That elusive feature of food consumption:"  
Historical perspectives on quality in Europe

Jérôme Bourdieu, INRA-LEA,  
Martin Bruegel, INRA-CORELA,  
Peter Atkins, Department of Geography, Durham University.

“Quality”, as an authoritative introduction to consumer choice asserted not so long ago, is the "most elusive and subjective feature of food consumption." The topic has media and political currency, but consumers are left with only an intuitive and approximate grasp of what the word is supposed to mean. Scholarly treatment of food quality remains incomplete: it is either confined to a single product (bread, milk, pasta, wine and so on), to one aspect (sanitary integrity, compositional standards, convenience, taste), or to the genesis of national laws to regulate the food business at the turn of the twentieth century (Great Britain 1860, Germany 1879 down to Yugoslavia 1930 and Norway 1933). General histories as well as encyclopaedias of food and foodways scatter comments on quality among many different entries and discrete observations. The resulting impression is that of a protean notion hovering across time and space, always acknowledged as an important factor in everyday lives but still awaiting a comprehensive analysis of its many facets as an organizing principle in the social fabric. It is therefore timely that a new literature is proposing an inventory that brings these accomplishments together in order to take stock of the question of food quality.<sup>1</sup>

Maybe the elusiveness of "quality" derives from the fact that food is both product and process. It is about exchange: food moves from producers to consumers, from wholesalers to retailers, from cooks to customers, and among family members. Circulation requires coordination, and coordination requires codes. All of the contributions in this issue – from Grandi's analysis of the paramount importance of "freshness" in the Mantova fish market in the early modern age to Nicolau and Pujol's account of the nutritional propeller causing the rise of cow's milk among consumer goods in Catalonia in the early twentieth century – provide examples of codification. These are processes of classification that order reality and infuse meaning to things as well as actions. Once elaborated, codes guide behavior. Their knowledge benefits actors while failure to observe them results in material as well as symbolic disadvantages. But disregard of codes in order to reap some kind of immediate benefit remains a temptation. Hence, our emphasis on institutions as code carriers as well as their defenders, as collectives that provide resources to complete transactions, on the one

hand, and enforce sanctions, on the other hand, because the threat of (unpunished) frauds puts order and regularity in jeopardy.

Codes regulating the flow of food, whether explicit or implied, proceed from different assumptions, and they often encapsulate divergent expectations among the participants in exchange: nutritional features and hedonic value may collide, and so may food safety and food taxation, appearance and contents, convenience and ethical concerns. In any case, coordination means prior negotiation of actors at odds with each other but committed to construct a stable foundation for their future interactions. Hence our second emphasis: conflict. Indeed, the genesis and demise of a product's definition – its qualification – tend to be contentious. They are historically situated. Contexts matter. Hierholzer's examination of the elaboration of a product standard in the German chocolate industry at the turn of the twentieth century showcases branch-wide discussions that opposed large companies to small firms because normalization opened some, but closed other paths of industrial development. Watts' study of the Parisian meat market in the eighteenth century explains the reason why new medical assumptions about human digestion undermined the traditional hierarchies of taste, transforming the hitherto despised beef into cuts of high repute; the ensuing increase in trade, however, roused worries among French sanitary authorities about zoonotic disease.

Norms, standards, values: their intersecting histories lend concreteness to the process of product identification. They pinpoint the spaces in which human activity turns generic foods into qualified goods. They capture the rhythms in which processes of classification happen. They zoom in on definitions as well as the (anticipated) uses of things. To approach their elaboration avoids the pitfalls of technical reductionism while recognizing the importance of technical characteristics and the processes through which standardization takes place. In short, norms, standards and values frame the conditions necessary for exchange to take place because they support and are supported by private and public institutions that provide people with rules and orientation for action.

Here, then, emerges a research venture to shed light on the conventions that hold society together and guarantee it the necessary stability for peaceful and orderly, if not necessarily equitable, interaction. It contains at least four angles: to unpack the several meanings of quality, to set modes of qualification into their specific temporal contexts, to show the operations and the institutions needed to implement them, and last but not least, to uncover the ways in which definitions of quality shaped not only routine interaction, but motivated on-the-spot disagreement and led to prolonged formal (legal) argument. The long and the short term are thus intricately linked. Customs and conventions persist in time. Contrapuntally,

though, times of crises provide historians with the necessary paper trail to reconstruct the norms and practices of food quality. New knowledge (Nicolau and Pujol, Watts) or new techniques (Grandi, Hierholzer) shake up quality conventions and modify product definitions. The late-nineteenth and early-twentieth century debates about national food and drug laws indicate that such incidents have quite protracted durations. Indeed, crises illustrate the deep historical roots of quality perceptions. Even putatively trivial events allow the historian to disentangle the multiple layers, convergence and divergence, in the conceptions of food quality and the practices they induced.

### Butter vs. margarine: a paradigm of quality definition?

Take the case of margarine. In 1967 the French margarine producers sought the government's authorization to add vitamins to their product. It seemed a perfectly reasonable request in 1967. The claimants enlisted historical experience among their arguments to prove the benefits of fortification. Hadn't the British mandated just such additives for public-health reasons during the Second World War to bring margarine's nutritional profile up close to butter's natural make-up? The partners of the French in the European Economic Community had made the same case in order to prevent rickets (due to vitamin D deficiency) and xerophthalmia (a consequence of vitamin A deficiency). The general trend went toward vitamin fortification as a public strategy to prevent disease, and France appeared ever more as an exception. Yet it was precisely this sanitary contention that proved the application's Achilles heel. Examination requirements included an investigation by the Academy of Medicine, a standing committee of experts whose origins date back to the sixteenth century when royal authorities appointed physicians to evaluate the therapeutic and curative powers of well-water. Their report relied on half a century of legal precedents. Based on a decree dated June 28, 1912 that prohibited the addition of chemical substances to foods, they urged the government to reject the petition. Any interference with a foodstuff's natural composition was bound to alter its characteristics, the line of reasoning held, and this particular intervention would shift the modified good into the realm of pharmacopoeia. That vitamin D had a bad reputation in France, where it had figured on the list of dangerous substances since November 1948, compounded the case, as did discussions about its effect on the occurrence of infantile hypercalcaemia in England. Fortified margarine – with a tarnished image, to boot – fell into the category of "preventative" or "dietetic" foods, both of which would have to be sold in clearly labelled packaging at licensed pharmacies. Relegating its commerce to the apothecary's counter came close to knocking the bottom out the market (just as fortified baby

formula struggled to take off in the face of opposition among paediatricians who feared hypervitaminosis). The French consumed roughly 1.2 kg (about three pounds) of margarine per head and per year in the late 1960s, while butter consumption was ten times higher. The prospect of a per caput consumption reduced to homeopathic doses prompted an about-turn among the grumbling margarine producers. They preferred a stable, if small, market to the peril of altogether vanishing from the scene.<sup>2</sup>

The almost century-old international search for mutually exclusive – as opposed to the integrated, galenian ("Let food be thy first medicine") – definitions of food and medicine shaped considerations on health and on governmental responsibility to limit a population's exposure to legally-defined hazardous substances. Product definition, however, did not merely come down to a bundle of sanitary concerns. It immediately raised the question of a good's qualification to enter the market. After all, fortification aimed at closing the gap between butter and margarine, between the expensive, genuine article and its cheaper surrogate ("artificial butter", as it was dubbed). Or, to put the issue in economic terms, to grant that margarine was a substitute for butter. The rivalry had a long history. Margarine, an industrial good, had mimicked the "natural", time-honored butter ever since its invention in 1869, indeed, it was the first industrial substitute of a food product. A legal recognition of substitutability was tantamount to lifting it up from the status of an incomplete incarnation of butter, to its full expression with identical uses (and utility). It would have instituted a level field of commercial competition between two equivalent products, not unlike the clash between the tropical cane and the temperate beet in the sugar market.<sup>3</sup>

The threat mobilized agricultural interests in Europe and North America throughout the late nineteenth and the twentieth century. Thus in 1882, the short-lived French journal *L'alimentation publique* noted "a curious detail, to wit, not consumers but agricultural societies are taking up the fight against deceitful practices which consist in selling as butter a product containing up to 80 percent margarine." Butter fundamentalists of all countries campaigned to establish legal frames in order to segment the market. In their view, the same fat content did not remove the spreads' differing attributes stemming from the raw material (cow's milk vs. animal blubber and later vegetable oils) and work processes (churning vs. hydrogenation), differences which rendered the two products incommensurable and comparison impossible – in the late nineteenth century as well as in 1967. To allow degrees (butter mixed with margarine) rather than to mandate kinds (butter on the one side, margarine on the other) would have dealt a blow to the butter market. The 1912 discovery of Vitamin A in butter tilted the balance in its favor because margarine lacked the micronutrient, at least for

as long as the chemical and pharmaceutical industry strove to produce synthetic varieties with which to augment foodstuffs (they succeeded in the 1920s). These were momentous events, since they inaugurated a new vocabulary, and then enhanced the legitimacy, of science in public discourse on food and health: butter had been a "natural", sometimes even a "pure" product; now it became a nutritious, a wholesome, a protective food.<sup>4</sup>

In France agricultural interests have long enjoyed privileged and permanent contacts with government and public servants (and so captured at least part of policy-making), and the situation could easily have persisted. The shake-up, when it came, originated from the outside, so to speak. It proceeded on the basis of commercial considerations. Sanitary concerns regarding a safe food supply had no role whatsoever when, in the 1990s, the European Commission enjoined France to admit fortified margarine in the interests of the free circulation of all goods legally produced in the Union's member states; simultaneously, the Commission sent a "reasoned opinion" to persuade the Netherlands to open its market to unfortified varieties. National regulations functioned as, so the argument went, concealed trade barriers. In all this, the consumer was an implied figure, not an active participant in the decree. The matter came down to providing as large a choice of spreads and kitchen fats as possible. The protection of health, the measure assumed, remained in the hands of member states: a product considered safe in one state will be safe for everyone – at least on the condition of carrying a distinctive mark. Within certain boundaries, and prompted by access to information on the product's "true nature", the market was free to operate. All that was needed was a label and larger distribution shelves. But note that a hybrid combining butter with a butter alternative (margarine, low-fat spreads) does not exist. Rules and definitions institute the market.<sup>5</sup>

### Institutions and the definition of quality

Even when presented in a nutshell, the butter-margarine competition yields several hooks on which to attach the search for insights into the meaning of quality. Of course, its changing tides and the appearance of many an alternative to butter merit an ampler historical sweep, which might include the curious challenge to lard in the early 1900s by the once discredited cottonseed-based shortening, or the exploits of lard producers who eventually imitated the erstwhile imitation, blurring distinctions of branding through which they had earlier – and often by legal *fiat* – tried to eliminate their competitor.<sup>6</sup> Even so, it appears clearly that product quality cannot be reduced to a food's intrinsic, inherent (one is tempted to say physical) properties. Composition obviously matters, but as the example of milk grading

proves, a product's make-up is itself the result of prior definition. In the 1930s a French manual on milk production stated the unanimous welcome given to regulation but noted that problems began already with the definition of "quality": the mere decision on who should be involved in its elaboration proved highly political, for interests diverged already in the farm yard. In Germany, the legitimacy of experts in the definition of food quality was a hotly debated question in the late nineteenth century.<sup>7</sup> In that sense, quality is a social construction: it includes considerations spanning the production process, the services and the disposal of a food. When a good enters the marketplace, quite a series of technical, sanitary, nutritional, legal definitions, about which many people have thought and argued, obtain prior to its commercialization. When it remains in private circuits where proximity enhances trust, taste criteria may precipitate the willingness to acquire a product. In both cases, food safety is assumed to be achieved through institutional or customary measures. This is precisely the task institutions accomplish when they "think" (as Mary Douglas famously asserted<sup>8</sup>): whether it be the paediatricians in twentieth-century Catalonia, the Union of German Food-Producers and Traders in the nineteenth century, the butcher's guild in eighteenth-century Paris, the *Conduttore dei Laghi* (Lakes manager) in seventeenth-century Mantova, or, as the quest for alternatives to butter shows, any other kind of interest group, including state administrators, they think by providing direction to individuals and to groups. They enable people to act and their stability allows for a reasonably certain extrapolation of future conditions in which to engage in trade.

Our case studies show that institutional actions evolve in a force field where several interests compete with each other. They struggle for the power of definition. In any case, institutions weigh in. This is not the place to investigate the conditions of collective action. Suffice it to note that constituted, legally recognized consumer representation in the food market appeared only toward the end of the nineteenth century. Notions of entitlement – or moral economy – had underpinned and justified earlier food riots and continue to do so, but boycotts of goods that appeared to be morally or materially wanting dominated the tactics of early consumers' or buyers' associations. In the legal battle over margarine's status, it was only in 1912, after the cost of living had soared for several years, that the French consumers' league, an early if ephemeral champion of a national office of consumer affairs, urged buyers to forgo dairy foods so as to curb the zeal of agricultural interest groups for legislation that would make it difficult for butter substitutes (lard, vegetable oils and, of course, margarine) to find their place on grocery shelves. As late as the 1930s, French consumers lacked the clout "to defend their legitimate interests." Legal empowerment and public recognition, the two

building blocks next to money in order for an institution or a lobby to be a contender, took a long time coming.<sup>9</sup>

Conflict and compromise are thus built-in features in the definition of quality. This in no way diminishes the role of taste and taste hierarchies as stakes in the struggle for the power to define goods and their social uses. The classifications of fish on the Mantova market, of meat in Paris and of chocolate in Germany clearly show the importance of canons of taste. The taste tenets come with the pecuniary requirements of refinement, and their coalescence helped to brace the pecking order in society: the whiter the bread and the meat, the better they conveyed high status and prestige, not the least because white foods appeared – as Watts points out – to require less digestive, physical work. Unsurprisingly, such a view of the world assigned the "coarser", darker varieties of bread and meat to the cruder stomachs of the plebs. Social judgment hit margarine, too. Its industrial origin caused a variety of trouble. At least initially it suffered from the perception as a poor gustatory and organoleptic imitation of butter, a prejudice that debilitated its claim to full-blown equivalence with butter. The indexation of foods in terms of the social order highlights their symbolic quality and the harnessing of organoleptic properties to social judgment and classification. Its analysis contributes to an explanation of styles of consumption because it examines the identification of foods with their consumers' status precisely because it locates or inscribes consumption in contexts that provide it with meaning to contemporaries as well as historians.<sup>10</sup>

Above all, conflict pitted different interest groups (including arbiters of good taste) against each other, and outcomes depended on their relations of power and capacity for influence. Degrees, then, are matters of appreciation. Appreciation implies arbitration, and arbitration inevitably solicits experts. Hence the presence of officials to enforce standards in the food market, whether they be members of guilds, professional associations or public administrations: market places function because of third parties not involved in exchange. What changed over time was the form and content of expertise. Not that practical knowledge disappeared. Retailers still carry the burden – and in some cases, the legal responsibility – of quality warranty without direct access to laboratory instruments. Sensory appreciation of merchandise (color, crunch, flavor, odor, texture...) continues to matter until this day when hands-on knowledge and connoisseurs' advice influence price-making in many high-end food markets. The education of veterinarians has dramatically changed since the eighteenth century, and yet members of the profession continue to control hygiene in the meat-production chain, from artificial insemination through slaughtering and distribution, with a combination of on-the-ground experience and scientifically tested knowledge.<sup>11</sup>

The rise of scientific foodstuff analyses and the professionalization of industrial chemistry dislocated, but did not obliterate such know-how. The consequence was two-fold. New insights and techniques helped "norm" foodstuffs by breaking them down into components that allowed quantitative comparisons: macronutrients moved beyond fish, meat, chocolate and milk to carbohydrates, proteins and fats.<sup>12</sup> This gain in scientific knowledge of the human metabolism left no place for the "flavor principle" but, as the German chocolate industry learned in the late nineteenth century, much space for discussion on the authentic good. After all, humans consume foods, not nutrients. Purity, in short, had snob appeal before technical progress and rising disposable incomes transformed cocoa consumption into a rather more trivial experience.<sup>13</sup> Or is it? The dynamics of diffusion require analysis, and Nicolau and Pujol move forward in that direction by illustrating the role of nutritional recommendations and medical experts in sustaining the increase in a product's *per caput* consumption. Why such advice seems to fail in the face of what is now called the obesity epidemic is another question. Note that dietary concerns surfaced in the soccer club in provincial Stein am Rhein (Switzerland) during the early 1950s when a physician recommended clear bouillon made from Maggi cubes to restore the players' physical condition because the potion contained salts lost through perspiration. Nothing came of that suggestion, but the inquiry alludes not only to the quite precocious, if fleeting concern with nutrition in local sports, but also hints at the importance of collective actors in the diffusion of information on, and the inculcation (or rejection) of new food habits. At present, whole milk consumption is accused of bearing its share in children's rising body weights. It is by no means surprising to see New York schools tinkering with their canteens' menus, from which America's erstwhile perfect food has disappeared, to be replaced with skimmed milk. With uncertain success: does acquired taste trump health, and if so, is indulgence for short-term enjoyment going to outwit the quest for longevity?<sup>14</sup>

The conundrum goes beyond individual values. It hints at norms, their internalization, and the sanctions associated with transgression. The price of fun is a shorter life, statistically speaking. When it comes to food quality, the gamut of penalties for breaking conventions runs large. Again, institutions – public and private – have played a significant role in the enforcement of norms. They often combined efforts to monitor behavior in markets and to mete out punishment for default.<sup>15</sup> The four articles in this issue offer examples of surveillance, but this is clearly an area in which to push research: how did agreements and contracts emerge, how were disputes solved; what were the consequences for dealers and their trade in general; what can we learn about the uses of quality definitions in contested everyday

transactions? While these are open questions, let's not forget that immediacy distinguished commercial relations in daily provisioning: networks often enhance trust, and long-term relationships between retailers and customers contribute to faith in an economic actor's honesty. This observation holds especially for food purchases, where, for many reasons including difficulty in preservation and storage, regular spot transactions between fishmongers, butchers, cowkeepers, bakers, grocers, etc. prevailed until well into the twentieth century. Repeat purchases were often based on credit, the attribution of which relied on a client's local reputation. The proverbial corner store was a nodal point in the configuration of relations in the neighborhood. It provided social and economic services in the district, integrating and defining it.<sup>16</sup> Yet just as membership in guilds certified to integrity but did not prevent free riders from betraying the honor code, so did embeddedness in neighborhood ties fail to stop cheating from happening: storekeepers who fell short of living up to quantity, quality or price expectations often became targets of crowd attacks. Face-to-face relations did not guarantee utter transparency and regular gentlemanly conduct in the food business.<sup>17</sup>

#### Market efficiency vs. consumer safety

The four articles in this issue expose two major axes along which contentions occurred and spilled over into more formalized, even legally-binding regulatory activity: they are market efficiency and public health. The recent European denouement in the on-going national fracas over butter and margarine indicates that the mediation between the two dimensions boils down to the question of whether wider supply – more choice! – increases the consumer's risk of exposure to baleful effects. It cuts both ways: are cheaper goods less safe? Do stricter product specifications exclude poorer consumers from consumption? Food markets thus represent a particularly striking example of the tension between safety and efficiency norms, so much so that these two dimensions at times absorb other parameters (like taste).

Public policies derive directly from these emphases on safety, on the one hand, or on opportunity, on the other. Their institutional realisation takes place via product certification or consumer information. Acceptable solutions vary: Americans seem to prefer margarine for precisely the reason invoked by the French to spurn it (margarine seems to have upstaged butter as the "healthier" spread among American consumers). Guilds staked their reputation on product guarantees. Their obligations to, and responsibility for, food safety justified their privileges; in Mantova as well as Paris and elsewhere, an important say in control and the organization of the market figured highly among these perquisites. Nowadays good

workmanship and traditional, locally transmitted craft skills sustain claims for a product's unique, typical flavor, that is its achievement of the full expression of an organoleptic potential otherwise lost in the industrial maelstrom.<sup>18</sup>

Industrialization supplied more homogeneous goods whose fabrication on conveyor belts according to precise standards enhanced human capacity to monitor the processes of production and the products. It improved market efficiency. Yet, as the example of the German chocolate industry illustrates, this technological and managerial achievement to produce constant quality came with worries about the imperative to cut production costs. Cheap ersatz ingredients or additives to mask unsightly aspects had adverse effects. Some among them not only affected the goods' organoleptic characteristics, but threatened consumers' health. The behavior of a small number of reckless producers can threaten the existence of their very market since loss of trust in the merchandise may stop consumers from buying them. In the case of food, measures and regulations to preserve the public's health are thus often tightly linked with the objective of market efficiency. Not without recalling the intricacies of the butter-margarine competition, the case of preservatives shows just how complicated, and thus contestable, arbitration is. The elimination of chemical stabilizers causes more spoilage, resulting in material losses and inducing a concomitant price hike that may deprive poorer consumers and even lead to social stigmatization. Their negative effects on consumers' health may not justify general prohibition but rather warrant targeted proscription (in canteens and cafeterias, for example). Or would warning labels suffice to inform and protect consumers?<sup>19</sup>

The argument about the industry's negative effects on taste does not hold everywhere, of course. In 1906, the French gourmet magazine *Cordon bleu* welcomed the arrival of perpetual pastry ovens that baked "6000 delicious and democratic cakes" per hour (out went artisanal skill as a requisite for culinary achievements). More generally, it is worth remembering that the industrialization of milk conditioning, especially pasteurization and sterilization, did much to improve the safety of fluid-milk supplies. The technology also tended to reduce the variety of organoleptic characteristics of cheese and butter because it standardizes milk as a raw material. It thus removed local peculiarities so important to typical products, but we do well to recollect that it was the creation of centralized, often cooperative butter-making plants that enhanced the reputation of certain areas as butter producers: the Bresse region in eastern France built its success in the interwar years precisely on such an organizational structure.<sup>20</sup>

Such convolutions yield other astonishing discoveries that chip away at conventional wisdom. Product quality and its definition do not move into a specific direction; there's no

unfolding blueprint. Take freshness. Early-modern Mantova relied on a peculiar system of labelling in its fish market to inform customers: the day's catch remained whole, the day after tails got cut off to signal that the product was past its best. Now ponder the lack, by the mid-twentieth century, of a standard for product freshness in the United States. Mandatory liability and standardized labelling, among others, were part of the regulatory arsenal early on, and when German chocolate manufacturers used a quality mark to signal their products' purity, their approach to consumer confidence almost elevated Italian city governments into policy ancestors.<sup>21</sup>

The tensions between the concerns for hygiene and for smooth commerce in food markets are a matter of degree, not of absolute, insuperable kind. No competent authority would want provisioning to deliver insalubrious goods that endanger lives but policy-makers will always evaluate the cost of prohibition on the economy. However, extreme conditions like wars impose policies of restriction that diminish general enjoyment of life while enhancing the status of ersatz products. Saccharin, for example, which was synthesized in the late 1870s then led an uphill struggle against sugar and the powerful sugar lobbies, made a great deal of headway during the First World War when battlefields in Europe coincided for years with areas of sugar beet culture. The Second World War compelled Stein am Rhein's soccer club to substitute cheap saccharin for the energy-rich, but expensive sugar in its half-time herbal tea; no mention survives on how this switch affected the game and the players' morale, a crucial question since it pertains to a consumer reaction: did they drink the artificially sweetened beverage? They may have preferred an unsweetened drink or something altogether different. Whatever the attitude, it is clear that they did not take a permanent liking to "light" tea. When rationing subsided and prices came down, sugar went back into the thirst-quencher.<sup>22</sup>

Historiography has it that legal product definitions, assorted with public and industrial laboratories, increased product safety.<sup>23</sup> But did they reduce frauds and falsifications; did they prevent betrayal of consumer trust? The somewhat whiggish argument implies that the fear of penal sanctions (from monetary penalties to imprisonment and the loss of a commercial licence) insured compliance. There are, however, indications that the search for loopholes in the legal framework, as well as the incentives to shirk customary or contractual obligations, continue to motivate economic actors. American observers were apparently divided over the interpretation of the astonishing number of litigations concerning foodstuffs in the 1930s: had deceptive practices increased or were overactive commercial jurisdictions striving to establish their legitimacy? In Britain litigation over food quality, especially alleged adulteration, grew

to be a small industry during the second half of the nineteenth century.<sup>24</sup> Recent events – just as the search for cheap or healthier butter substitutes since the invention of margarine or the use of maize to extract sucrose as a replacement of beet or cane sugar – appear to prove the boundlessness of human ingenuity to produce profits... and to circumvent rules and regulations. Emulation and improvement are the springs of innovation. They also test, and tend to disrupt, food quality definitions; hence the continued push toward new regulatory measures and institutional adjustment.

Time is a fundamental variable in the elaboration of quality norms and their implementation. The scope of an area where rules apply depends on the extent and the complexity of bureaucracies. Administrations develop in response to problems or opportunities and in correlation to technical capabilities or limitations. Capabilities for communication certainly enhance efficiency and their ever-increasing speed certainly contributes to the expanding scale of regulatory intervention. And yet, the pertinent level of historical analysis needs reflection and argument: the Roman empire or commercial networks in the Middle Ages may form the relevant context, just as the towns of Grenoble or Münster or the province of Catalonia may yield more insight into "quality" as an organizing principle of everyday life than a bird's eye view through the spectrum of the nation-state. Different scopes of norms and practices co-exist in time. While efforts were made centrally to impose a single nomenclature of meat cuts and their quality in France in the second half of the nineteenth century and indeed succeeded in this project of normalization, local customs still prevail over these norms in the ranking of the different pieces.<sup>25</sup>

#### Time, space and quality: research venues

What are the engines that move changes in the valuation of a good's attributes? What accounts for the multiple forms of quality definitions? How do they coexist? The four papers provide examples and venues for further research. Medical concerns certainly sustained the growth of milk consumption since the eighteenth century.<sup>26</sup> Arguments in its favor changed over time, however, and the register switched from its therapeutic to preventative uses. The acceptability of beef, too, got a boost when physiologists improved their understanding of digestion. The process of qualification via medical knowledge modified neither product in its intrinsic nature. And yet, medical expectations influenced the appreciation of leaner meats in the long run in France (the "manly" red, too, lost some of its appeal – but in the United States), a factor that, combined with changing cooking techniques, sustained the development toward less fatty meat cuts in the French market, where stew went into decline when steak and

roast became standard fare. While the trajectory of dietary advice, the channels through which it travels, and its appropriation by individual and collective consumers requires further research, it is tempting to broach the hypothesis that the medical impulses affected the entire supply chain, starting with consumers and moving back to the producers. Information pushed production.

The opposite movement, the one which currently excites much commentary, pertains to technical developments that make claims on product quality. Industrial transformation proceeds most efficiently with homogeneous raw materials. Hence the early industrialization of flour and oil milling, sugar processing or salting fish, sectors in which standardized products largely predominate. Heterogeneous inputs slow the mechanization and automation of food production because human hands are needed to sort and, in the case of meat and fish for example, to clean. The fabrication of sardine and tuna cans has been particularly labour intensive for precisely this reason, and since salaries always appear compressible, these industries hire women to perform the repetitive tasks (men carry out the work in the red-meat industry, poultry remaining in the hands of women). Productivity growth – and the elimination of human labour from the production line – thus required the standardization of raw materials. Regular dimensions enhance their aptitude for industrial transformation on the conveyor belt. Long before the efforts to extend the shelf lives of possibly spotless fruit and vegetables, requirements for their optimal industrial preservation as tinned foods led to research and experiments to achieve regular dimensions (to avoid frequent human manipulation of raw material and machinery) and fixed consistencies (to withstand the application of pressure). Botanists and gardeners in early-modern Europe had striven to increase the number of varieties. In the twentieth century standards became a concern in the supply chain, their genesis and implementation aimed to coordinate and smooth food processing. The European Community, for example, mandated the sizes of commercial apples and pears by 1971, an injunction that contributed to the reduction of the number of fruit varieties in the market. While genetic manipulation arouses much interest and debate, the early history of raw-food standardization and its effects on supply remains little-known. Here is a paradox to explore: technology may have debilitated taste and reduced choice, but contributed to a supply that was plentiful and sanitary (if sanitized). Technology tilted taste.<sup>27</sup>

Place matters, and the relation of quality and location of production requires investigation. Local resources like soil, animal species and plant varieties, fodder and their knowledgeable orchestration by local artisans combine, in the minds of many consumers, to make the reputations of a wide variety of products to be marketed beyond the areas of

production. Didn't Brillat-Savarin notoriously insist that there were only three regions to produce decent poultry? The equation also holds for raw material. French industrial pasta producers valued durum wheat from the Ukraine and Northern Africa, and they used such geographic references as marketing strategies.<sup>28</sup> While the historical literature on *terroir* designations and labelling is growing,<sup>29</sup> historians could take a cue from geographers and trace a good's itinerary and transformation from the soil or the water to the plate and beyond. Such research would not only establish patterns of provisioning and scrutinize production chains (from the social relations of labor to work's impact on the environment, to industrial organization, marketing and consumption), but focus on how quality conventions are established, enter into the trade equation and help determine commercial interaction down to the disposal of food waste. It is an approach that is open to studying the material culture of food, linking geographic inscription and changing forms and uses, relations that warrant mapping out over the longer term.<sup>30</sup>

Conventions, legislation and regulation yield important insights into the social construction of quality. But what if agreements, contracts and law decrees are disregarded? The contingent circumstances of litigation in local courts are likely to offer a window on the social experience of quality. However much legal action was beyond the reach of many consumers, court cases yield evidence on the everyday understanding – the codes – of food quality. Research in legal archives as well as trade publications is likely to uncover the creative appropriations of norms, their transformation in quotidian practices. As yet, we have little idea how such 'knowledge' of the practical limits of quality played out and one suspects that a comparative history would show substantially different stories according to national tradition and jurisdiction.

The empirical studies in this issue tackle the different aspects of quality and its definition. They look at product integrity from a variety of angles. They pay attention to norms and practices. They zoom in on institutions but introduce us to the odours and the noises in the market place and in the factory. It seems that there is boundless scope for further historical work, and that such research is important for an understanding of what, at the moment, are taken-for-granted aspects of our food supply. Historical evidence is often particular, but as studies of the role of freshness in fish markets, of health in the meat trade, of composition in chocolate production, and nutritional concerns in milk consumption move beyond the specific case to move us closer to an understanding of "food quality" in the organization of society. And so they provide a basis for theorizing food quality.

## Notes

<sup>1</sup> Christopher Ritson, Richard Hutchins, "Supply and food availability," in David Marshall (ed.), *Food Choice and the Consumer* (London, 1995), 34. No compact entry on food quality in M. E. Ensminger et al. (ed.), *The Concise Encyclopedia of Foods and Nutrition* (Boca Raton, 1995); Jean-Louis Flandrin, Massimo Montanari (ed.), *Histoire de l'alimentation* (Paris, 1996); Alan Davidson, *The Oxford Companion to Food* (Oxford, 1999); Kenneth F. Kiple, Kriemhild Coneè Ornelas (ed.), *The Cambridge World History of Food*, 2 vols. (Cambridge, 2000); Heinz-Gerhard Haupt, *Konsum und Handel. Europa im 19. und 20. Jahrhundert* (Göttingen, 2003); Solomon H. Katz (ed.), *Encyclopedia of Food and Culture*, 3 vols. (New York, 2003); Andrew F. Smith (ed.), *The Oxford Encyclopedia of Food and Drink in America* (New York, 2004); Massimo Montanari, Françoise Sabban (ed.), *Atlante dell'alimentazione e della gastronomia* (Torino, 2004). The two exceptions to this general observation are John Burnett, *Plenty and Want. A social history of food in England from 1815 to the present day* (1966, London, 1989), 216-239; and Karl-Peter Ellerbrock, "Lebensmittelqualität vor dem Ersten Weltkrieg: Industrielle Produktion und staatliche Gesundheitspolitik," in Hans J. Teuteberg (ed.), *Durchbruch zum modernen Massenkonsum. Lebensmittelmärkte und Lebensmittelqualität im Städtewachstum des Industriezeitalters* (Münster, 1987), 127-188. Our extensive debt to specific histories is acknowledged in the references below.

<sup>2</sup> Surely there is a research deficit on the congresses initiated by the Croix Blanche in Geneva whose agenda it was to define products; see

- , *le 8-12 Septembre 1908* (Genève, 1909);

...par

*Societe universelle de la croix-blanche de Genève* (Paris, 1910). See F. Brun, "Médicament et aliment," *Bulletin de la Société scientifique d'hygiène alimentaire* 58 (1970), 67-71; on vitamin legislation, see E. J. Bigwood, "Hétérogénéité des législations nationales en matière de vitamiation des aliments," *L'alimentation et la vie* 55 (1967), 183-203; Jean-Philippe Delarue, "La consommation alimentaire des français en 1971," *Collections de l'INSEE*, sér. M 18-19 (Paris, 1972); 52. On Great Britain, see Michael French, Jim Phillips, "Protéger le consommateur ou soutenir les producteurs ? La politique alimentaire menée par le Royaume-Uni de 1945 à 1958," *Revue d'histoire moderne et contemporaine* 53-3 (juillet-sept. 2004), 171-172.

<sup>3</sup> On regulation, see Jutta Grüne, *Anfänge staatlicher Lebensmittelüberwachung in Deutschland* (Stuttgart, 1994), 37-38, 86, 261-262; 331-336; Ruth Dupré, "If It's Yellow, It Must Be Butter: Margarine Regulation in North America Since 1886," *Journal of Economic History* 59/2 (1999), 353-371; Michael French, Jim Phillips, *Cheated, not Poisoned ? Food regulation in the United Kingdom 1875-1938* (Manchester, 2000), 10-11, 25-26, 41-42, 45-50; E. Melanie DuPuis, *Nature's Perfect Food: How Milk Became America's Drink* (New York, 2002), 110, 114, 117; Alessandro Stanziani, *Histoire de la qualité alimentaire* (Paris, 2005), 175-189; on sugar, see Uwe Wallbaum, *Die Rübenzuckerindustrie in Hannover; Zur Entstehung und Entwicklung eines landwirtschaftlich gebundenen Industriezweigs von den Anfängen bis zum Beginn des Ersten Weltkriegs* (Stuttgart, 1998), and Pierre Saunier, Martin Bruegel, "Nascita e sviluppo dell'industria alimentare," in Massimo Montanari et Françoise Sabban (ed.), *Atlante dell'alimentazione e della Gastronomia*, (Turin, 2004), vol. 1, 393-397.

- <sup>4</sup> *L'alimentation publique*, Nov. 1882, 4. For concise and witty descriptions of butter and margarine making, turn to Davidson, *Oxford Companion*, 117-118, 478-479. On efforts to synthesize vitamins, see Sally M. Horrocks, "The Business of Vitamins: Nutrition Science and the Food Industry in Inter-war Britain," in Harmke Kamminga, Andrew Cunningham (ed.), *The Science and Culture of Nutrition, 1840-1940* (Amsterdam, 1995), 235-258; Rima D. Apple, *Vitamina: Vitamins in American Culture* (New Brunswick, NJ, 1996), 33-53. – A word on terminology: fortification nowadays means restoring nutrient content that a food may have lost in processing; enrichment goes beyond levels originally present. Historically and in everyday use, the notions are more often than not used interchangeably.
- <sup>5</sup> *Food Law News*, 3 July 1998 (internet access).
- <sup>6</sup> For a brief account that insists on the somewhat fantastic nature of the substitution, see Carl L. Alsberg, "Economic Aspects of Adulteration and Imitation," *Quarterly Journal of Economics* (Nov. 1931), 30-31.
- <sup>7</sup> A. Goujon, *La production d'un lait propre et sain* (Paris, 1937), 35; Peter J. Atkins, "The pasteurization of England: the science, culture and health implications of milk processing, 1900-1950," in David Smith, Jim Phillips (ed.), *Food, science and regulation in the twentieth century*, (London, 2000), 37-51; Karl-Peter Ellerbrock, "Lebensmittelqualität," 139-143.
- <sup>8</sup> Mary Douglas, *How Institutions Think* (London, 1987).
- <sup>9</sup> *Bulletin de la Société scientifique d'hygiène alimentaire* 2 (1912), 191-192. On the weakness of French consumerism in the interwar years, see *Courrier de la Normalisation* (août-sept.-oct. 1932), 3; on consumers' leagues, see Véronique Pouillard, "Catholiques, socialistes et libres-penseurs: les porte-parole des consommateurs en Belgique (1880-1940), in Alain Chatriot et al. (ed.), *Au nom du consommateur; consommation et politique en Europe et aux Etats-Unis au 20<sup>e</sup> siècle* (Paris, 2004), 262-276; Marie Chessel, "Aux origines de la consommation engagée: la Ligue sociale d'acheteurs (1902-1914)", *Vingtième siècle. Revue d'histoire* 77 (janv.-mars 2003), 95-108; Uwe Spiekermann, "Warenwelten. Die Normierung der Nahrungsmittel in Deutschland 1850-1930," in Ruth E. Mohrmann (ed.), *Essen und Trinken in der Moderne* (Münster, 2006), 106; on post-World War II, see Gunnar Trumbull, *Consumer Capitalism. Politics, Product Markets, and Firm Strategy in France and Germany* (Ithaca, 2006).
- <sup>10</sup> For an early theory, see Georg Simmel, "Fashion," *International Quarterly* 10 (Oct. 1904-Jan. 1905), 130-155; and Thorstein Veblen, *The Theory of the Leisure Class* (1899, New York, 1994). On food hierarchies, see Steven L. Kaplan, *Provisioning Paris. Merchants and Millers in the Grain and Flour Trade in the eighteenth Century* (Ithaca, NY, 1984), 43-48; Jean-Louis Flandrin, "La distinction par le goût," in Philippe Ariès, Georges Duby (ed.), *Histoire de la vie privée*, Paris, 1986, vol. 3, 267-309; Allen Grieco, "Lebensmittel und soziale Hierarchien im spätmittelalterlichen und frühneuzeitlichen Europa," in Michael Prinz (ed.), *Der lange Weg in den Überfluss. Anfänge und Entwicklung der Konsumgesellschaft seit der Vormoderne* (Paderborn, 2003), 37-46.
- <sup>11</sup> Peter A. Koolmees, John A. Fisher, Richard Perren, "The Traditional Responsibility of Veterinarians in Meat Production and Meat Inspection," in Frans J. M. Smulders (ed.), *Veterinary Aspects of Meat Production: Processing and Inspection* (Utrecht, 1999), 8-30; Peter Haenger, *Das Fleisch und die Metzger. Fleischkonsum und Metzgerhandwerk in Basel seit der Mitte des 19. Jahrhunderts* (Zürich, 2001), 57-80.

- <sup>12</sup> For a convenient history of nutrition, see Kenneth C. Carpenter, *Protein and Energy: A Study of Changing Ideas in Nutrition* (New York, 1994).
- <sup>13</sup> Francesco Chiapparino, *L'industria del cioccolato in Italia, Germania e Svizzera dall'Ottocento alla prima guerra mondiale* (Bologna, 1997); Peter Scholliers, "From elite consumption to mass consumption: The case of chocolate in Belgium," in Adel P. Den Hartog, (ed.), *Food Technology, Science and Marketing: European Diet in the Twentieth Century* (East Linton/Scotland, 1995), 127-138.
- <sup>14</sup> Hanspeter Erzinger, *Freuden und Leiden eines Sportvereins: Fussballclub Stein am Rhein 1923-2003* (Schaffhausen, 2003), 52; "Thinning the Milk Does Not Mean Thinning the Child," *New York Times*, 12 Feb. 2006.
- <sup>15</sup> Peter Barton Hutt, Peter Barton Hutt II, "A History of Government Regulation of Adulteration and Misbranding of Food," *Food Drug Cosmetic Law Journal* 39 (1984), 2-73; Madeleine Ferrières, *Histoire des peurs alimentaires: du Moyen âge à l'aube du vingtième siècle* (Paris, 2002).
- <sup>16</sup> Examples here are legion: Sidney Mintz, "Peasant Markets," *Scientific American* 203 (Aug. 1960), 112-122; Kaplan, *Provisioning Paris*; Reynald Abad, *Le grand marché: l'approvisionnement alimentaire de Paris sous l'Ancien Régime* (Paris, 2002), 277; Barbara Keller, *Von Speziererinnen, Wegglibuben und Metzgern. Lebensmittelhandwerk und -handel in Basel 1850-1914* (Zürich, 2001), 148-151, 154-156; Uwe Spiekermann, *Basis der Konsumgesellschaft. Entstehung und Entwicklung des modernen Kleinhandels in Deutschland 1850-1914* (München, 1999), 28-48.
- <sup>17</sup> E. P. Thompson, "The Moral Economy of the English Crowd in the Eighteenth Century," *Past & Present* 50 (1971), 76-136; Lynne Taylor, "Food Riots Revisited," *Journal of Social History* 30/2 (1996), 483-497; Béatrice Ziegler, "Der Bieler 'Milchkrieg' 1930-31. Konsumentinnen organisieren sich," in Jakob Tanner et al. (ed.), *Geschichte der Konsumgesellschaft. Märkte, Kultur und Identität, 15.-20. Jahrhundert* (Zürich, 1998), 117-132.
- <sup>18</sup> On workmanship, see Thorstein Veblen, "The Instinct of Workmanship and the Irksomeness of Labor," *American Journal of Sociology* 4 (1898-1899), 187-201; and its importance in the AOC label as well as its instrumentalization in commercial promotion, Laurence Bérard, Philippe Marchenay, "Le sens de la durée: Ancrage historique des 'produits de terroir' et protection géographique," in Martin Bruegel, Bruno Laurioux (ed.), *Histoire et identités alimentaires en Europe* (Paris, 2002), esp. 25-31.
- <sup>19</sup> Jérôme Bourdieu, "Normes et classifications à l'épreuve de la crise de la vache folle," in Alessandro Stanziani (ed.), *La qualité des produits en France 18<sup>e</sup>-20<sup>e</sup> siècles* (Paris, 2003), 195-216; Ellerbrock, "Lebensmittelqualität," 144-153, 168-183; George A. Akerlof. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics* 84/3 (Aug. 1970) , 488-500.
- <sup>20</sup> *Cordon bleu* (1906), 195. Milk supply safety: François Vatin, *L'industrie laitière* (Paris, 1990), 66-75; DuPuis, *Nature's Perfect Food*, 76-89.
- <sup>21</sup> On freshness, see Charles Wyand, *The Economics of Consumption* (New York, 1938), 292.
- <sup>22</sup> Christoph Maria Merki, *Zucker gegen Saccharin. Zur Geschichte der künstlichen Süsstoffe* (Frankfurt a. M., 1993), 238-260, 269-270; Erzinger, *Freuden*, 51-52.

- <sup>23</sup> John Burnett, *Plenty*, 230; Hans J. Teuteberg, "Food adulteration and the beginning of uniform food legislation in late nineteenth-century Germany," in John Burnett, Derek J. Oddy (ed.), *The Origins and Development of Food Policies in Europe* (London, 1994), 154-156.
- <sup>24</sup> Wyand, *Economics*, 298-314; for a concise account of the case law, see the many editions (starting in 1886) of Sir William Bell's textbook, variously entitled *Law of the sale of foods*, and *Bell's Sale of Food and Drugs Acts*.
- <sup>25</sup> Lucie Paquy, "Le laboratoire grenoblois d'analyses alimentaires (fin 19e siècle), *Revue d'histoire moderne et contemporaine* 51/3 (juillet-sept. 2004), 44-65; Grüne; *Anfänge*, 101-126; for comments on expertise, laboratory science, and food regulation at the city level, see Peter Atkins and Alessandro Stanziani, "From laboratory expertise to litigation. The municipal laboratory of Paris and the Inland Revenue laboratory in London, 1870-1914: a comparative analysis," pp 317-39 in S. Van Damme, C. Rabier, C. (ed.), *Fields of expertise: experts, knowledge and powers in European modern history* Newcastle, 2007, 317-339; Anne Lhuissier, "Cuts and Classification: The Use of Nomenclatures as a Tool for the Reform of the Meat Trade in France, 1850-1880," *Food and Foodways* 10/4 (2002), 183-208; G. Hennequin, *Le charcutier, le boucher, l'équarisseur* (Paris, 1935), 318-330.
- <sup>26</sup> Bruno Laurioux, "Du rejet à l'intégration," dans Philippe Gillet (ed.), *Mémoires lactées. Blanc, bu, biblique: le lait du monde* (Paris, 1994), 41-44.
- <sup>27</sup> Siegfried Giedion, *Mechanization Takes Command; a Contribution to Anonymous History* (1949, New York, 1969), 130-141; Allen J. Grieco et al. (ed.), *Le monde végétal, 12<sup>e</sup>-17<sup>e</sup> siècles: savoirs et usages sociaux* (Saint-Denis, 1993); on fruit, Florent Quellier, *Des fruits et des hommes: l'arboriculture fruitière en Ile-de-France vers 1600-vers 1800* (Rennes, 2003); on vegetables, Antoine Jacobsohn, Dominique Michel, *Le petit pois* (Arles, 2001).
- <sup>28</sup> Jean Anthelme Brillat-Savarin, *Physiologie du goût* (Paris, 1982), 83; Silvano Serventi, Françoise Sabban, *Les pâtes. Histoire d'une culture universelle* (Arles, 2001), 223, 247-248.
- <sup>29</sup> Kolleen Guy, *When Champagne Became French: Wine and the Making of National Identity* (Baltimore, 2003); James E. Wilson, *Terroir: the Role of Geology, Climate and Culture in the Making of French Wine* (Berkeley, 1999).
- <sup>30</sup> On quality and social relations of production and distribution, see *Journal of Rural Studies* 19/1 (Jan. 2003); Brian Ilbery *et al.*, "Quality, imagery and marketing: producer perspectives on quality products and services in the lagging rural regions of the European Union," *Geografiska Annaler B*, 83 (2001) 27-40; Jonathan Murdoch *et al.*, "Quality, nature and embeddedness: some theoretical considerations in the context of the food sector," *Economic Geography* 76 (2000) 107-25; Nicholas Parrott *et al.*, "Spatializing quality: regional protection and the alternative geography of food," *European Urban and Regional Studies* 9 (2002) 241-61. Sophie Dubuisson-Quellier, Jean-Philippe Neuville (ed.), *Juger pour échanger. La construction sociale de l'accord sur la qualité dans une économie des jugements individuels* (Paris, 2003); Peter Atkins, "Laboratories, laws and the career of a commodity," *Environment & Planning D: Society & Space* 25 (forthcoming 2007).