

THE “MILK BATTLE” AND EVERYTHING AFTER: THE CONSUMPTION OF DAIRY PRODUCTS IN SPAIN SINCE THE 1950s*

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Dairy products feature prominently in the main historical narratives on modern diet change. For socio-economic historians, dairy products were one of the carriers of what nutritionist Barry Popkin calls the “nutritional transition”: a long-run process by means of which people came to eat not only more, but also differently. Even though historians such as Josep Pujol, Xavier Cussó and Ernst Langthaler have pointed out the existence of different national and regional paths of nutritional transition depending on geographical and socio-economic characteristics, dairy products seem to play a major part in most of them. Dairy products are also essential to economist Louis Malassis’ characterization of successive “models of food consumption” from 1850 onwards. Two of these models in particular, the “diversified, market-oriented” model of the period 1850-1950 and the “agro-industrial model of mass consumption” of 1950-1980 (basically two distinct stages in Popkin’s longer-run nutritional transition), are strongly informed by the spread of dairy consumption¹.

Other historical narratives have paid special attention to the world of dairy as well. For cultural historians, milk has been the perfect product to study the formation of consumers’ food preferences in a complex web of ideas, representations, and beliefs. In Deborah Valenze’s global and local history of

* Trabajo preparado para el XVII Congreso de Historia Agraria SEHA (Salamanca, 2021).

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¹ Popkin (1993), Grigg (1995), Pujol and Cussó (2014), Langthaler (2018).

milk, for instance, milk becomes “a marker of the emergence of a peculiarly Western food culture”². For environmental historians, the diffusion of milk consumption provides a good opportunity to analyze the impact of diet change on sustainability³. Historians of science, on their part, use milk to explore the social construction of food standards, a key element in the positioning of any given food product in large-scale markets⁴. Historical sociologists, finally, have seen dairy as an apt illustration of the changes in consumption that go hand in hand with broader configurations of geopolitical and corporate power in food systems⁵.

This chapter summarizes (sometimes far too hurriedly and tentatively) an ongoing book-length project dealing with the consumption of dairy products in Spain since the 1950s. The aim is to contribute to giving an answer to three open questions about the history of food consumption in the global North after the Second World War. The first question has to do with the break in food consumption trends that several accounts identify around the 1980s: what is this break about? If, according to Malassis, an “agro-industrial model of mass consumption” triumphed between 1950 and 1980, what are the characteristics of its present-time successor? If, according to Popkin, from the late twentieth century onwards we can see signs of a change in consumer behaviour, what is this change about? Following this descriptive question, our two other questions are of an analytical kind. The second question has to do with the causes of diet change. Why did the industrial, mass consumption model triumph in the decades after the Second World War? Why has this model been replaced by a different one in the last few decades? Finally, our third question involves assessing these successive models of food consumption. Are they contributing to social progress and promoting the “good life” (or, perhaps more plausibly, a better life)?

The rest of the chapter is organized as follows. In the following section the conceptual framework, informed by the approach of historical political economy, is presented. We then submerge in our study case, identifying two distinct models of dairy consumption in Spain from the 1950s to the present. After that, two

² Valenze (2011: 5); see also Velten (2010).

³ Smith-Howard (2014).

⁴ Atkins (2010).

⁵ DuPuis (2002).

sections are devoted to explaining and assessing each of these two models. The concluding section positions the case study in relation to the broader questions that have been posed in this introduction.

DIET CHANGE AND POLITICAL ECONOMY

This study of diet change is framed within economist Nuno Ornelas Martins' proposal to revive the approach of political economy. For Martins, political economy is a surplus theory, in contrast to mainstream economics as a scarcity theory. According to Martins, this surplus theory must be accompanied by a social theory, in which individual action and social structure presuppose one another, and an ethical theory, in which human welfare is defined multi-dimensionally in terms of objective capabilities. This contrasts to a mainstream economics that allegedly would not need to be framed socially or ethically: the relationship between individual action and social structure would be reduced to the former constituting the latter, while subjective pleasure would be the one-dimensional measure of human welfare⁶.

This political economy approach will be useful to analyze the causes of diet change, as well as to assess its consequences. However, a necessary previous step is to describe said changes properly. To that purpose, it may be convenient to develop the historical dimension of the political economy approach proposed by Martins. While mainstream economics searches for axioms and general laws in the mirror of classical physics, historical political economy follows evolutionary biology in its stress on pattern formation and identification⁷. It is from this angle that Malassis' notion of "food consumption models" becomes useful to us as a descriptive tool. A food consumption model is a structure that emerges and unfolds through time, finding some internal coherence in the combined evolution of a given set of consumption patterns. Three groups of patterns stand out, in particular: first, aggregate levels of consumption; second, the structures of

⁶ Martins (2014).

⁷ Hollingsworth and Müller (2008) provide a detailed treatment of this contrast between what they call "Science I" and the kind of "Science II" that they propose as an epistemological canon for "socio-economics", an approach that has much in common with the political economy tradition advocated by Martins (see Hellmich, 2017).

consumption according to the biological origin of foodstuffs (for instance, vegetal- vs. animal-based products), their degree of industrial processing (for instance, processed vs. unprocessed products) and the practices involved in their consumption (in particular, domestic vs. extra-domestic consumption); and, third, segmentation patterns among consumers depending on income and social class, to which we might add whatever other variables that are thought to shape systematic deviations from average consumption levels. We can then try to identify successive “food consumption models” through history, each of them with its specific sequence of rise and fall⁸.

What are the causes of the rise and fall of a food consumption model? Our starting point here will be one of the basic premises of political economy: that economic analysis must be embedded in its social context. Malassis’ work, again, offers a potentially fruitful perspective in this respect. Malassis’ theory combines consumers’ demand capacity and the food chain’s supply capacity with a number of social variables ranging from urbanization to the organization of the household economy and the evolution of cultural patterns. This theoretical agenda, more inclusive than others, allows for an integration of traditionally separated research programmes: the study by mainstream economists of consumers’ household budget constraints, the study by mainstream sociologists (and institutional economists) of the social shaping of individual preferences, and the study by Marxist political economists of the material and cultural influence that systems of provision exert on consumer behaviour.

Differently from Malassis, however, we propose to structure these different variables in two distinct levels of analysis. The first level is the level of the quantitative, and our interest here is to study the budget constraint that consumers face. Considering their income level and the price of a given product, how hard is it for consumers to purchase that product regularly? How exacting is it for them to consume some more? A second level of analysis is the qualitative level, and the key issue here has to do with the preferences and orientations that consumers have in relation to that product. How interested are consumers in becoming regular buyers of the product? Do they use increases in their

⁸ Malassis (1997); see some elaboration of this notion in Collantes (2015).

purchasing power to increase their consumption level? Or is their behaviour not particularly sensitive to changes in income and prices?

In the tradition of evolutionary economics, consumption “waves” result from an appropriate coming together of developments at both levels of analysis⁹. The evolution of consumer preferences and orientations defines the empirical domain over which household budget calculations have an influence on consumer behaviour (table 1). If, for instance, preferences become strongly negative in relation to some product, the fact that consumers’ purchasing power is increasing will be irrelevant. The final outcome depends on the combination of developments that take place in spheres that are semi-autonomous from one another: the macroeconomic sphere (the economic history of the nation), the mesoeconomic sphere (the business history of the food chain) and the socio-cultural sphere (the cultural history of food habits and preferences). Therefore, it is likely that the history of food consumption follows a pattern of punctuated equilibrium; that is, consumption models with relatively stable trajectories would alternate with periods of turbulence and transition featuring lower levels of structural coherence¹⁰.

Table 1. Conceptual framework and empirical strategy

| Ontological domain | Conceptual domain | Theoretical structuration | Empirical observation |
|--------------------|------------------------|---|---|
| Quantity | Economic possibilities | Consumer preferences define the empirical field over which changes in the economic possibilities have an impact on consumer behaviour | Household budget constraint (household income, consumer prices) |
| Quality | Consumer preferences | | Responsiveness factor and qualitative material |

Source: derived from Malassis (1997) and Scholliers (2014).

⁹ See a fascinating theoretical and historical analysis in Freeman and Louçã (2001).

¹⁰ The notion of punctuated equilibrium was first used by evolutionary biologists Niles Eldredge and Stephen Jay Gould. It may well be applied to other sorts of complex systems and it is actually implicit in much classical work in historical social science, such as for instance Karl Marx, Werner Sombart, Joseph Schumpeter and Karl Polanyi. For a more explicit discussion (and vindication) for the field of socioeconomic history, see Lloyd (2002).

Finally, political economy assesses change from an ethical dimension. In the case of consumption, it does not seem reasonable to neutralize the ethical dimension by resorting to the notion of consumer sovereignty or by calling scholars to respect popular consumer cultures¹¹. In the particular case of food, it does not seem appropriate either to frame the analysis in terms of a purely utilitarian ethic that assesses consumption only in terms of consumers' biological health or (taking a longer-run view of utility) in terms of environmental sustainability. These angles of evaluation are undoubtedly important, but we believe that they must be incorporated to the broader ethical issue of the relationship between consumer society and the good life, as presented by a long (even if intermittent) tradition in the social sciences.

Perhaps a good entry point into this tradition is the argument made recently by historian and economist Robert Skidelsky and his son, philosopher Edward Skidelsky, that the good life in our current affluent societies requires that we adopt some notion of sufficiency, rather than yet one more wave of consumer capitalism. The Skidelsky's starting point is, on their part, a well-known essay that economist John Maynard Keynes wrote in 1930, "The economic possibilities of our grandchildren". During the Great Depression, Keynes argued that Western economies would not only grow again, but that they would do so at a fast pace that would turn them into affluent societies. It would be then, Keynes thought, when humans would for the first time have the chance of considering their "economic problem" solved and shift their energies towards higher pursuits, among them cultivating art, nature and social relationships. For the Skidelskys, Keynes was basically right about growth, but spectacularly wrong about its implications. Western economies did not need much time to grow again and there actually were times (the "golden age of capitalism" between 1945 and 1973) when they happened to grow much faster than Keynes had predicted. But people just did not think of their "economic problem" as solved, basically because they came to perceive new needs and new desires as consumers. In consequence, we have been very far from witnessing the reductions in working hours that Keynes

¹¹ The first of these routes has been commonly followed by mainstream economists, with a consequent impact on cliometric historians, while the second of them is currently dominant among historians of consumption (see for instance Trentmann, 2012 and 2016). However, there are signs that both economists and historians are beginning to abandon these intellectual tendencies (see respectively Stiglitz, 2008, and Offer, 2007).

imagined in his essay, in which he even mentions the possibility of a 15-hour working week¹².

The Skidelskys' dichotomy between sufficiency (good life) and consumerism (bad life) may well be, however, an extreme illustration of a more general ethical problem: the problem of the direction of economic change. This is a problem that has been recently pointed out by economist Mariana Mazzucato, who argues that we should consider not only the rate of economic growth but also its direction. Mazzucato proposes that governments should direct social energies towards missions and challenges that focus on relevant problems and make a substantial contribution to improving peoples' lives¹³. In a way, this is the return of a perspective dear to the classical political economists and heterodox economists such as Thorstein Veblen: the tension between productive uses of the surplus, on the one hand, and wasteful luxurious consumption, on the other¹⁴. Seen from this perspective, the adoption of a new round of consumption targets is not necessarily detrimental to the good life. It will all depend on the nature of said targets. Our sufficiency of today may well result, after all, from the progressive consumerism of yesterday. This perspective may prove fruitful when evaluating food consumption models through history.

TRACKING MODELS OF DAIRY CONSUMPTION IN SPAIN

An analysis of the available quantitative evidence for our particular study case identifies two distinct models of dairy consumption in Spain from the 1950s onwards¹⁵. The first of them unfolded between 1950 and 1980. It was an extraordinarily expansive model, the core of which was the massification of milk consumption (figure 1). At the start of the period, the consumption of milk was very low for European standards. As late as in 1960, the Spanish minister of

¹² Skidelsky and Skidelsky (2012), Keynes (1930). Keynes' essay seems to be strongly connected to his main body of work; see the collection compiled by Pecchi and Piga (ed.) (2008) to find a variety of views on this and related matters, though. After Keynes, this tradition has been nurtured and developed by scholars as influential as John Kenneth Galbraith (1958), Erich Fromm (1955; 1976) and, more recently, Juliet Schor (2011), Clive Hamilton (2003) or Barry Schwartz (2004).

¹³ Mazzucato (2021).

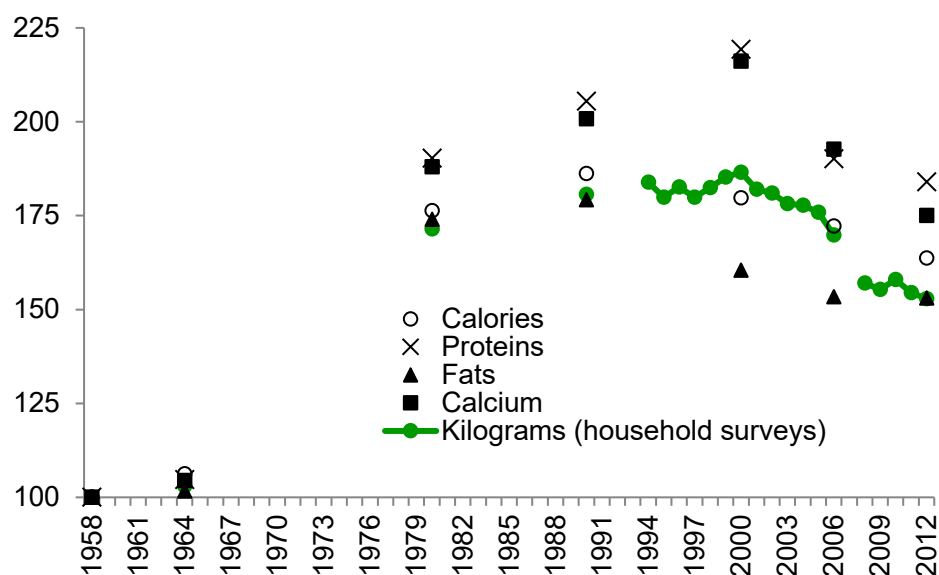
¹⁴ Martins (2014).

¹⁵ This section is based on Collantes (2015).

Commerce, Alberto Ullastres declared: “The milk battle is still very far from having been resolved”. He went on to stress that one of the major challenges that the government faced was to achieve a full spread of milk drinking across the country¹⁶.

In the following decades, milk consumption became massive indeed: for the first time it became widespread, irrespectively of social class or regional differences. It was massive also in the sense that consumers gradually abandoned raw milk, almost entirely dominant still by 1950, and embraced processed milk, which was mass-produced by an emerging national dairy processing industry.

Figure 1. Per capita consumption of dairy products in Spain, 1958=100



The consumption of dairy products, measured in terms of calories and other material indicators, grew very rapidly until the 1980s and then stagnated and eventually decreased.

Source: Collantes (2015).

Afterwards, between around 1980 and 2000, a period of turbulence, during which this model of consumption faded away, ensued. Milk consumption, in particular, ceased to grow. However, it was not until around the turn of the century that a successor model of consumption, displaying some internal coherence, emerged. In aggregate terms, the successor model is contractive, as a result of

¹⁶ “Información”, *Revista Española de Lechería*, 38 (1960), p. 206.

the rapid decrease that is taking place in the consumption of milk. In terms of variety, conversely, the model is highly expansive, as consumers have reoriented from a small number of simple dairy products towards an ever expanding set of varieties of milk and, even more so, cheese, fermented milks and other refrigerated desserts (table 2). Another characteristic trait is that, while the older model was premised upon a decrease in social disparities (leading to the massification of milk consumption), the newer one is premised upon an increase in said disparities, as higher-income households have been more involved in the consumption of the new varieties of dairy products (figure 2).

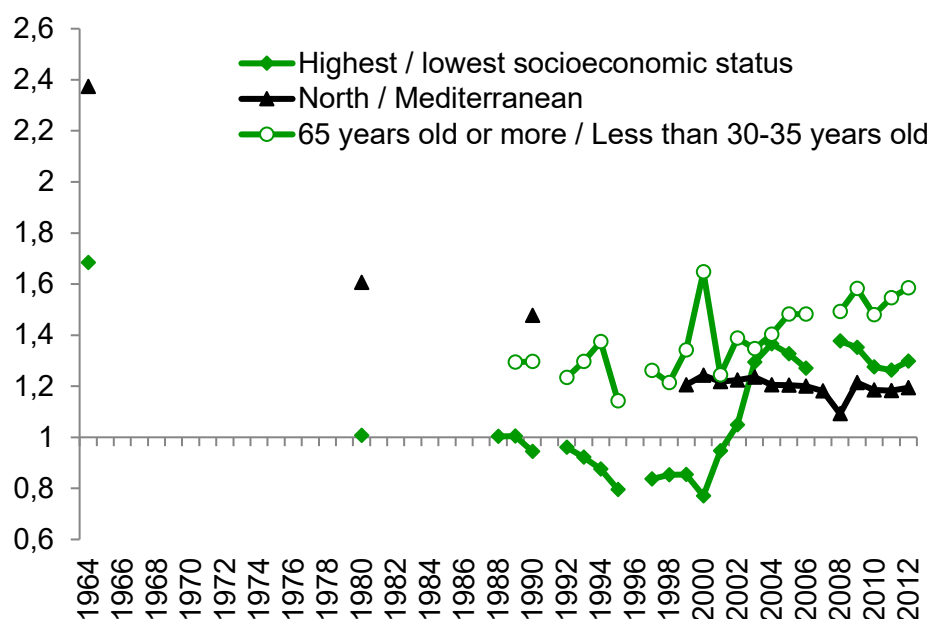
Table 2. Breakdown of consumption according to types of dairy products

| | 1958 ^f | 1964/5 ^f | 1980/1 ^f | 1990/1 | 2000 | 2012 |
|--|-------------------|---------------------|---------------------|--------|-------------------|-------------------|
| Kilograms (except otherwise noted) per person and year | | | | | | |
| Liquid milk (litres) | 77.9 | 78.7 | 125.1 | 126.9 | 116.3 | 83.7 |
| Preserved milk ^a | 1.2 ^g | 2.8 | 3.7 | 2.1 | 0.9 | 0.9 |
| Cheese | 1.5 | 1.5 | 4.3 | 6.3 | 6.7 | 9.7 |
| Butter | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 |
| Yoghurt | | 0.2 | 5.7 | 8.1 | 13.3 ⁱ | 16.8 ⁱ |
| Other ^b | | | | 3.1 | 14.5 | 13.5 |
| Calorie shares (%) | | | | | | |
| No processing ^c | 75 ^h | 88 | 29 | 14 | 2 | 1 |
| First-degree processing ^d | 7 ^h | | 53 | 58 | 53 | 40 |
| Second-degree processing ^e | 17 ^h | 12 | 18 | 28 | 44 | 59 |

Notes: ^a Evaporated, concentrated, condensed and powdered milk; ^b Mostly milk and yoghurt shakes, ice creams and refrigerated deserts other than fermented milk; ^c Raw milk; ^d Pasteurized, sterilized and preserved milk; ^e Cheese, butter, yoghurt and all other dairy products; ^f Domestic consumption only; ^g Condensed milk only; ^h c. 1950; ⁱ Includes all fermented milk.

Source: Collantes (2015).

Figure 2. Patterns of segmentation in the consumption of dairy products



Social and regional disparities became much lower during massification, but some social hierarchization re-emerged around the year 2000.

Note: The North and the Mediterranean are the regions with the highest and the lowest consumption level, respectively.

Source: Collantes (2015).

These two models of dairy consumption, separated from one another by an in-between transition period, match two distinct eras in the making of consumer capitalism in Spain. The massification of milk consumption between 1950 and 1980 was part of a broader process of making of a mass consumer society. Spanish consumers became more affluent, and a new middle-class identity was formed upon changes such as the nutritional transition, the diffusion of new durables (i.e., cars, household appliances) and the access to own-property urban flats. This happened in parallel to other major transformations in Spain’s economy and society, including the culmination of long-run changes such as industrialization, urbanization, the demographic transition and the literacy transition¹⁷.

The second dairy model, which began to take shape in the 1980s and became more consistently formed around the turn of the century, was part of a different wave in the history of consumption in Spain. This wave was driven by

¹⁷ Alonso and Conde (1994), Maluquer de Motes (2005).

other different goods and services, among them consumer electronics, services related to everyday life and leisure, and single-household homes in residential peripheries located nearby the country's cities. In contrast to the relative homogeneity of consumer profiles during the previous period, there was now a move towards greater fragmentation in consumption styles. The new wave of consumer capitalism must be put in the context of other important changes of direction in Spain's socio-economic history, among them deindustrialization and the transition to a service economy, counter-urbanization, a steep decline in fertility and the generalization of secondary schooling¹⁸.

We now turn to the study of each of these two models of dairy consumption. In both cases, we will consider the causes of change in consumption patterns first and the consequences in terms of social progress later.

MASSIFICATION (1950-1990)¹⁹

Around 1950, milk played a minor part in the diet of most Spanish consumers. Except in the tiny strip of Atlantic-climate regions in the north of the country, where farmers had become increasingly specialized in cattle raising, most people drank milk only occasionally. This was particularly so among low-income households. Unlike other Mediterranean countries, the marginal position of milk in the Spanish diet was not compensated by a high level of consumption of other dairy products, such as cheese or yoghurt.

Why was milk consumption so low around 1950? Partly, for economic reasons. For most households in most regions, drinking milk regularly would have required a huge economic effort. As a reflection of the country's economic backwardness and the prevalence of high levels of social inequality, most households had a low level of disposable income. Both problems were actually more severe around 1950, following a decade a poor macroeconomic performance during the early period of Francisco Franco's dictatorship, than twenty years earlier. The average household had not recovered its pre-war peak

¹⁸ Collantes (2017a).

¹⁹ This section is based on Collantes (2017b, 2017c, 2019, 2020a).

income level yet and income inequality had risen as a result of Franco's labour and agricultural policies.

Moreover, the relative price of dairy products was high. This was a reflection of mesoeconomic problems. The production chain, composed mostly of small-scale farmers (many of them, actually unspecialized in dairying), small-scale traders and a just a few processing companies, was weak. It was not necessarily inefficient, but its growth potential was low. Milk production was undertaken under organic technological conditions, which implied that in most of the country aridity exerted an upward pressure on milk prices. Especially in the Mediterranean and Andalusia, where rainfall levels were low, feeding cows with recourse to natural meadows and green grass was very costly. In fact, farms in those regions were more commonly specialized in other commodities better suited to local conditions, such as wine, olive oil, oranges and vegetables. Furthermore, the fact that the country's main cities, like Madrid, Barcelona or Seville, were located far away from the rainfall-abundant regions of the north, made it difficult for their populations to drink milk coming from the latter. Even though these were long-standing problems in the way of mass milk consumption in Spain, they had probably become more severe during the 1940s, as the Civil War of 1936-39 and the subsequent dictatorial regime dismantled some of the business networks that had been operating on this area in the early decades of the twentieth century.

Consumer preferences and orientations also had an influence on Spain's low level of milk consumption. Why should one drink milk, after all? Since the beginning of the twentieth century, the emerging science of nutrition had been stressing the health benefits of drinking milk, among them the intake of animal proteins, vitamins and calcium. In Spain, physicians and local institutions had been enthusiastically involved in spreading this message, which had been particularly influential among urban high-income households and the middle classes. Around 1950, the reach of what historian Deborah Valenze calls "the gospel of milk" was remarkable, but far from universal²⁰. Especially in those rural areas that had little tradition in dairying, some consumers remained mostly uninterested in milk. In the mid-1950s, the director of one of the country's most

²⁰ Valenze (2011: 206).

important processing companies, Manuel Ramos from SAM (*Sindicatos Agrícolas Montañeses*), wondered why Spanish consumers did not drink at least half a litre of milk per day. “It is food habits”, he argued, “rather than Spain’s low average income level, that will for a long time prevent the achievement of such a goal”²¹.

But, as developments in the late 1950s and early 1960s would show, most consumers did not have a problem with dairy products as an abstract concept, but rather with the specific kinds of dairy products that were available to them. During the years prior to 1965, the state made a powerful extra effort to increase the reach of the gospel of milk. A school milk programme based on U.S. surplus production was started, and the International Milk Day organized by the International Dairy Federation was heavily promoted. Moreover, most households began to face a softer budget constraint. Amid what would be the start of an extraordinary macroeconomic upswing that would last until the mid-1970s, disposable incomes increased substantially. It is true that the problems of the dairy chain were persistent and that the relative price of milk even increased. The dictatorship’s policy for the promotion of industrial milk production was incapable of stimulating the production of pasteurized milk much, while it unintendedly disrupted the urban markets for raw milk. Even so, household incomes rose faster than the relative price of milk, so that consumers’ purchasing power increased. And yet, in the years prior to 1965 consumers used very little of that increased power to buy more dairy products.

The key problem was the qualitative assessment that consumers made of those dairy products that were actually available to them²². Because the policy of milk industrialization was not working well, for most people drinking milk equated drinking raw milk. Consumers, however, mistrusted raw milk. Fraudulent practices (such as watering) and preservation problems were widespread, and cases of poisoning-related illness were common in the country’s main cities. As a popular saying would express in a most concise way, “Cheap milk, killer milk”²³.

²¹ Ramos (1955: 39).

²² This argument about food quality and food scares is in line with the broader perspectives given by Stanziani (2005), Scholliers (2008) and Atkins (2010).

²³ The Spanish words rhyme: “*Leche barata, leche que mata*”; Lacasa (1982: 57).

Consumers were also unconvinced about other dairy products that they could have used as a substitute for milk. Powder milk was promoted by public campaigns (including the school milk programme), but consumers found that the taste of milk reconstituted from powder milk was not comparable to that of “real” milk. Cheese was present everywhere, because its production and preservation were not so strongly conditioned by environmental constraints. However, for consumers it was hard to be enthusiastic about cheese because there was very little guarantee about its quality. Not only was there fraud (for instance, margarine addition), but also the chain was full of artisanal, unspecialized producers that were incapable of producing cheese that would always have the same taste and texture.

The move towards massive milk consumption happened mostly after 1965. During the last decade of the Franco dictatorship, from 1965 to 1975, household incomes grew very rapidly, reflecting the country’s macroeconomic success. Moreover, income inequality decreased, in large measure due to the effects of the acceleration of urban-rural migrations and the culmination of occupational change from agriculture to the rest of sectors. In other words, most households improved even more than average figures suggest. Income growth deaccelerated with the industrial crisis that started in the 1970s, but the economic position of many households went on improving as a result of the pro-equality policies implemented by the newly established democratic regime, among them pro-labour regulations in the labour market, progressive tax reform and welfare transfers. The massification of milk consumption was also made possible because the gospel of milk went on spreading among all strata of Spanish society. Physicians remained resolutely enthusiastic in their prescriptions about milk consumption, and the state went on using a vast array of propaganda and mass communication devices in order to make their voice heard.

However, these changes were already taking place before 1965 and milk consumption only took off after that date. The key change after 1965 was the transformation of the production chain, which for the first time came to be dominated by a flourishing processing industry. By importing pasteurizers, sterilization towers and other industrial machinery, processors upgraded the technology of milk production. Processors also induced noteworthy changes in farmers’ practices, in some cases reinforcing farmers’ ongoing strategies (i.e.

substituting autochthonous cows with Frisian, high-yield cows) and in others orienting their technological trajectory in new directions (i.e. installing on-farm refrigeration tanks)²⁴. The industrialization of milk production was favoured by an active state policy that granted local monopolies to processors in exchange for them to secure the provision of healthy, safe milk within price bands set by the state. This policy had been implemented as early as 1952, but in its first few years it had given far too narrow profit prospects to producers and investors. The policy revision of 1966, which set more generous price bands, sent a more positive signal and promoted investment in the industry.

The reason why the rise of processors was so important had to do with consumer trust in milk, and not so much so with the price of milk. The narrative that we find in Marxist political economy, according to which the rise of processors after the Second World War created a food regime premised upon cheap food, is not applicable here²⁵. True, Spain's dairy processors were capable of guaranteeing the provision of milk at reasonable prices, putting an end to the inflationary pressures that had been manifesting in the years prior to 1965. But it would not be tenable to argue that milk industrialization led to a cheap milk regime. Processed milk was actually around 20 per cent more expensive than raw milk. If the budget constraint that households were facing became softer, it did so mostly because household income grew rapidly and only secondarily (and at a rather late stage) because of the price reductions made possible by milk industrialization.

The key rupture brought about by milk industrialization was of a qualitative nature. Consumer preferences reoriented towards liquid milk. Most consumers were more than willing to pay processed milk's "quality premium" in relation to raw milk. By doing so, they could forget about the latter's traditional problems of unreliability and shift to a homogenous, standardized product. Processors were credibly committed to keeping the qualitative characteristics of milk reliable and stable through time. In fact, an analysis of commercial advertisements reveals that processors repeatedly positioned quality and trustworthiness as core values

²⁴ Dairy specialization, which had started under organic conditions, became thus closely linked to the development of the so-called Green Revolution in Spain; for a critical review of this shift, see Fernández Prieto and Lanero (eds.) (2020).

²⁵ For a survey of the cheap food regime, see Magnan (2012).

in their communication strategy. By the 1980s, this was clearly so for all five major, nationwide brands (RAM, Pascual, Central Lechera Asturiana, Clesa and Puleva) and most of the stronger regional brands. One of the top five brands had actually been created as an acronym for “Pure milk’s cow” (Puleva: *Pura Leche de Vaca*)²⁶. The massification of milk consumption was closely linked to the industrialization of production, but not through price reductions as much as through increasing consumer trust. If consumers had remained reluctant about the milk that was available to them, their increasing purchasing power would not have led to more consumption.

This consumption model, based on the massification of processed milk, made an important contribution to social progress. Around 1950, the Spanish diet was reasonably good in terms of caloric intake, but it suffered from other shortcomings. Perhaps the most evident of these was, according to retrospective analysis, calcium deficiency. For Spaniards, more exposed to sunlight than other Europeans, it is probably good enough to reach the lower band of standard nutritional advice on calcium. However, around 1950 not even the upper classes were reaching it. The widespread diffusion of milk consumption solved the main “historical” problem that remained pending in the nutrition of Spaniards. There is actually some connection between the temporal and spatial patterns of milk consumption and those of heights, which also grew greatly during these years²⁷.

The dynamics of the 1950-1990 model of consumption were also positive from the viewpoint of social cohesion. Massification destroyed milk as a marker of status. Around 1950, and still around 1965, the consumption of milk, similarly to that of meat, was distinctive of high-status households. Low-income consumers not only had a major problem of calcium deficiency, but also were likely to see their well-being eroded by a feeling of relative deprivation in relation to higher-income consumers. Seen from this angle, the massification of milk consumption contributed to the making of a middle-class society in Spain. The emerging middle class defined its identity in terms of (among other factors) a new consumption pattern featuring a more complete, more diverse diet and a

²⁶ Puleva’s association with milk’s purity was commonly reinforced by the kinds of images that the company (Uniasa) used in its advertisements; see for instance *Industrias Lácteas Españolas*, 83-84 (1986).

²⁷ See for instance Martínez-Carrión (2016).

domestic space radically transformed by household appliances and urban services. Milk was part of this story. For much of the period, it was actually a more essential part of the story than glamorous, technology-intensive goods such as cars.

It is within this bigger picture that a few other, not so positive ramifications have to be considered. Milk quality improved in a certain sense: that of reliability and trustworthiness. But it is far from clear that it also improved from the viewpoint of taste and sensorial experience. The sources from the period often portray a consumer that is unconvinced about the taste of processed milk and prefers that of raw milk. In the Adalusian city of Huelva, for instance, still in the 1980s (that is, a few years after a local milk processor had been established) illicit traders would be selling raw milk from door to door, and even the spokesmen of the dairy processing industry had to admit that its texture was closer to that of “those milk bowls of yesterday, so much longed for and remembered today”²⁸. The technical choices made by processors during this period may have had a negative impact on the taste and sensorial quality of milk. For reasons that were basically economic and logistic, processors became more and more focused on producing UHT milk, the taste of which was in all likelihood worse than that of pasteurized milk. Consumers backed this choice by means of their purchasing decisions, partly because UHT milk could be preserved without refrigeration and, therefore, sourcing it within longer time intervals was feasible. However, these interlinked decisions of producers and consumers ended up defining processed milk as a healthy, reliable product, rather than as a pleasurable one.

Another problem of this model of consumption had to do with its environmental implications. The industrialization of the milk chain implied a deterioration of energy efficiency, as the chain came to be ever more dependent on absorbing vast amounts of external energy for the feeding of cows in farms, the operation of industrial machinery in processing plants, and the transportation of commodities all across a highly integrated national market²⁹. In the short run, perhaps this was not too high a price to pay in exchange for solving the health

²⁸ “En Huelva se consumen a diario 9.000 litros de leche sin higienizar”, *Industrias Lácteas Españolas*, 31 (1981), p. 56.

²⁹ For a full account of environmental impacts of agricultural change in Spain, see González de Molina *et al.* (2020).

problem posed by calcium deficiency and reinforcing social cohesion, but it certainly was a pending issue – one of the avenues along which the successor model of consumption would have the chance to make its own contribution to a better society.

DIVERSIFICATION AND MODERATION (1990 TO THE PRESENT)³⁰

Even though milk consumption had ceased to grow rapidly in the 1980s already, it was in the 1990s when it started to decline. Over the last quarter century, this decline has gained momentum and become the main driver of the new model of dairy consumption.

The key rupture has to do with changing consumer preferences and orientations. A major difference between the times of accelerated growth in milk consumption and today is that scientific messages about milk have become much less compact and insistent. During the last thirty years, the consensus among nutritional scientists about the amount of calcium that is necessary for a healthy diet has been eroded. When it comes to calcium (the major nutritional reason for drinking milk), a surprisingly wide range of scientific recommendations has emerged on a global scale. This has probably contributed to weakening what until then had been a highly cohesive network of physicians, policymakers and agribusiness leaders that had insistently propagated pro-milk messages in Spain during the period 1950-1980.

Another element that must be kept in mind has to do with lactose intolerance. Spain is not a country where rates of lactose intolerance are particularly high from a global perspective, but it does have rates that are somewhat higher to those in northern Europe. Medical and social attitudes towards intolerance have changed substantially. The *Revista Española de Lechería* (Spanish Dairy Journal), the main professional journal related to the dairy chain between around 1950 and 1980, contains abundant qualitative information showing that during that period physicians had insistently

³⁰ This section is based on Collantes (2020b) and on work in progress that exploits the same sources that I used for my research on the previous period: official statistics such as household budget surveys and qualitative material from professional journals such as *Industrias Lácteas Españolas* and *Revista Española de Lechería*.

recommended intolerant consumers that they should overcome their “problem” and drink milk anyway. Physicians had also been prone to linking any complaints about indispositions related to milk drinking to a lack of the right habits and orientations among consumers, rather than to a biological condition. This pressure on the lactose-intolerant population, which must have been particularly effective when applied on mildly intolerant consumers, has been relaxed as the scientific understanding of lactose intolerance has been strengthened. The availability of lactose-free milks, such as those made from almond or soy, took place later than this change in attitudes towards intolerance, but of course reinforced its implications.

We must also consider milk’s poor performance in terms of consumers’ sensorial experience. For a long time, the advertising of milk focused on health and reliability. In no small measure, it still does. However, as some heterodox publicists warned during the wave of massive growth already, little was done to position milk as a tasty, enjoyable product. In fact, processors also did little to produce milk that consumers would find pleasurable. In the 1960s and 1970s they consistently made technological choices that were openly harmful for milk’s taste, such as favouring sterilized, UHT milk over pasteurized milk and opting for homogenizing the fats in whole and semi-skimmed milks. Through a path-dependent process, these technological choices were crucial at shaping innovation at a later stage. When a few years ago one of the country’s most reputed gastronomic journalists, Mikel López Iturriaga, wrote in the digital version of the country’s leading newspaper an article that was highly critical of the quality of Spanish milk (which he referred to as “insipid water-like liquid”), his readers quickly replied with a few hundreds of mostly approbatory remarks.

In contrast to the sharp decline of milk, cheese and refrigerated desserts became the new drivers of demand. Consumers became interested in an ever wider array of new possibilities, as we have described in an earlier section. Broadly speaking, these were products behind which there was remarkable investment in R&D and marketing. These were products with a price per calorie (or per kilogram) much higher than that of milk, too. As a matter of fact, these new dairy products started to occupy centre stage in the profit-making strategies of the country’s main processors, while a process of severe restructuring set in for dairy farmers and those processors specialized in liquid milk only.

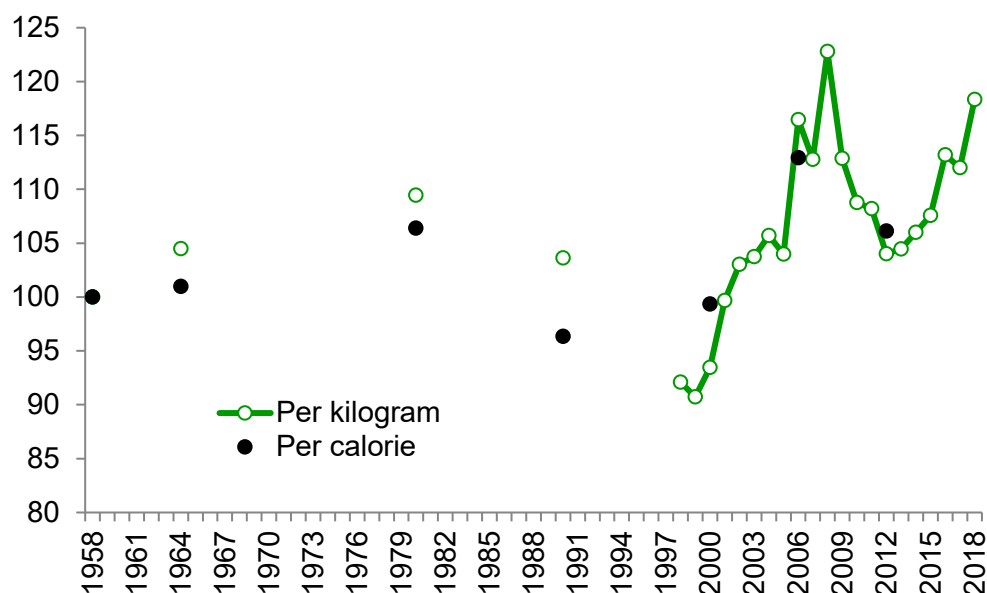
What attracted consumers to these new products? Why were consumers willing to spend money on them, when simpler, cheaper alternatives existed? In some cases, both for cheese and desserts, it is likely that consumers prized a more pleasurable sensorial experience. This experience, in turn, could result from a higher degree of objective quality, for instance cheese with protected designations of origin and yoghurts produced by means of semi-artisanal techniques. It could also result simply from higher sugar content, especially in the case of many yoghurts and other desserts. In other cases, the sensorial experience may have been less important than consumers' perception that eating and drinking the new products would be good for their health. This was so, for instance, with milks fermented with probiotics, fortified yoghurts and milk-based drinks that were designed to tackle cholesterol problems. All of these products were substantially more expensive than their traditional counterparts, but a new generation of consumers came to be interested in them for health reasons. This was, in a way, an echo of the orientation that previous generations of consumers had had towards liquid milk.

New preferences were joined by propitious economic conditions. Even though Spain never recovered its astonishingly high rate of growth of the period 1950-1975, household incomes rose remarkably between the early 1990s and 2008. Meanwhile, the relative price of dairy products was going down as a consequence of technological change in both farming and processing, as well as of the onset of cutthroat competition and restructuring in both nodes of the chain and in retailing (which came to be dominated by a small number of supermarket chains). The newer products were of course more expensive than the older ones, but (contrary to what had happened in the liquid milk market before the mid-1960s) there was never any sign of inflationary pressure in their markets. In other words, most consumers' purchasing power in terms of dairy products improved substantially, at least until the Great Recession.

During a brief but significant interlude, approximately ten years prior to the start of the Great Recession, a new wave of expansion in consumer expenditure in dairy products emerged. It was an expansion at the extensive margin (that is, based on the incorporation of new products), in contrast to the expansion at the intensive margin (based on increasing expenditure on already existing products) of the previous period. The unit value of the average dairy calorie taken by

consumers grew unprecedentedly, much more sharply than in the previous period (figure 3).

Figure 3. Unit value of aggregate dairy consumption (constant 2013 euros), 1958=100



Between the late 1990s and 2008, consumers shifted to higher-price dairy products. This trend was reversed during the Great Recession but emerged again in the late 2010s.

Source: Collantes (2020b).

The Great Recession drastically interrupted this wave. As disposable incomes decreased and social inequality increased, many households adjusted their consumption pattern. Many of the newer dairy products were identified as more or less dispensable objectives, which could be sacrificed in order to secure a proper satisfaction of needs that were more fundamental. We must consider that, during the previous ten years, the consumption of new dairy products had been remarkably segmented according to social status. Unsurprisingly, high-income households had been in a better position to substitute conventional milk with fortified milk, ordinary cheese with protected designations of origin, and natural yoghurts with milks fermented with probiotics. The Great Recession reduced the share of households that were in a good position to get involved in this sort of qualitative substitutions.

The Great Recession may also have had longer-lasting consequences on consumer preferences. In the years right after 2013, consumers regained

purchasing power, but their attitude towards the newer dairy products seems to have been less enthusiastic. It is true that the unit value of the dairy calorie has increased again, as it had been doing prior to 2008. However, at least by now, this reboot of the new wave of dairy consumption has not been strong enough to compensate for the fall in expenditure on milk consumption. In other words, consumers have become interested in the new dairy products again, but, contrary to what happened in the decade prior to the Great Recession, not as much as to compensate for their increasing lack of interest on liquid milk.

As a matter of fact, the question about the limits of the reorientation of consumer preferences remains open, even for the period prior to the recession. A preliminary quantitative analysis suggests that the response given by the consumers of dairy products other than milk to changes in their purchasing power has been somewhat erratic or, at least, does not fit easily into conventional curves of product life cycles³¹. Perhaps a problem was that consumers did not regard the intrinsic quality of the products highly, or at least not high enough to be willing to pay the premium prices set by processors and supermarkets. This has been a frequent complaint among agribusiness leaders, especially processors and traders who were trying to expand the market niche for high-quality, high-price cheese. It is far from obvious that most consumers were able to identify any intrinsic quality premiums, though. Some experiments based on blind sampling suggest that, at least around the turn of the millennium, consumers were truly incapable of telling higher-quality dairy products from their lower-quality alternatives.

Considering it all, the new model of consumption should then be seen as still in the making. There is a tension between opposed forces and conjunctures, and it is not possible (at least by now) to provide a definitive image. This of course has implications when it comes to assessing the new model of consumption, which we can only do tentatively and provisionally.

Two things are clear, though. When it comes to dairy, Spanish consumers have not stayed comfortably in what we may term the “Keynes scenario”. After the massification of milk consumption, they have not seen their “dairy problem” as solved and (up to some extent) they have become interested in defining new

³¹ Collantes (2020b).

consumption objectives. On the other hand, this has not led either to what we may label as the “Galbraith scenario”. For dairy processors, it has not been so simple to induce new needs among consumers. Only in the decade prior to the Great Recession did the expenditure in dairy products grow fast and, even so, its level in absolute terms at the end of that interlude was not very different from the one that had been reached around 1980 already. Alongside consumer interest for newer, more sophisticated products, there has also been a trend towards moderating consumption in material terms, especially through a reduction in the consumption of liquid milk.

Reality seems to be somewhere in between both extreme scenarios. This moves us to wonder whether this set of changes has promoted the good life and social progress. It is likely that the new model of consumption has been less progressive than the older one. Contrary to the older one, it is far from clear that the new model has improved the Spaniards’ nutritional health. In fact, its main nutritional effect may well have been none of the ones propagated by corporate advertising, but rather increasing sugar intake, one of the most evident nutritional problems in contemporary Spain. To this we must add that, because of its reliance on the extensive margin and new product cycles, the new model of consumption has favoured inequality among consumers. This stands in contrast to the older model’s capacity to reduce the feeling of relative deprivation among lower-income households.

Nor is it evident that, inasmuch as consumers have become more interested in dairy products that are more expensive, this extra expenditure has been directed towards solving the problems that were pending when the era of massification came to an end. The consumption of organic dairy and products coming from short chains has remained marginal. We often hear that organic food is far too expensive for far too many consumers, but in this case the data suggest that consumers have simply decided to focus their extra economic effort in pursuing other sorts of objectives within the conventional food system. One can imagine a more progressive path – one in which consumers would have remained attached to simple dairy products but would have directed their extra expenditure towards varieties of those products that were more sustainable in environmental terms. One can also imagine a path more conducive to the good life in purely hedonistic terms, had consumers chosen to substitute their simple dairy products

of the early part of the period with higher-quality varieties, such as products with protected designation of origin.

CONCLUSION

This essay synthesizes provisional arguments from a broader, book-length project that is still in progress. Dairy products in Spain are taken as a study case of diet change in the global North from the Second World War to the present. Following a historical political economy approach, the stress is on three dimensions of diet change: a description of change in terms of paradigms or “consumption models”; an analysis of its causes based on a combination of macroeconomic, mesoeconomic and socio-cultural factors; and an assessment of diet change informed by ethical perspectives on consumer society.

When it comes to the description of diet change, the case studied here lends support to the argument, posed by Louis Malassis and other scholars, that two models of food consumption can be identified since the Second World War. The first of them lasted until the 1980s and involved the massification of the transition towards a diet that was both more abundant and richer in animal-based foods. The second model took shape in the final years of the twentieth century and it was partly about consumers undertaking qualitative substitutions, that is, substituting simple products with more sophisticated, more expensive varieties of those same products. It is far from clear, though, that qualitative substitutions are the driving force of the new consumption model. At least in our case, a striking fall in the material intake of dairy products, whole milk in particular, has taken place. Only during the decade prior to the Great Recession were qualitative substitutions strong enough to counterbalance this trend and drive a new wave of consumption growth.

When it comes to the causes of diet change, our results highlight the need to combine economic and socio-cultural factors. None of the two consumption models can be explained properly if we dismiss changes in consumers’ purchasing power or changes in consumer preferences. The massification of consumption between 1950 and 1990, for instance, could look like a textbook example of the influence of accelerated economic growth and industrialized food

systems in the post-war decades, but also depended crucially on consumers regaining the trust that they had lost in dairy products. The new dynamics that started around 1990 had a socio-economic element (the diversification of dairy consumption was particularly clear among high-income households and during economic upswings) but were highly dependent on changes in consumer preferences too (for instance, consumers' increasing lack of interest in liquid milk). In other words, the schism that keeps apart economic and cultural historians is detrimental for both. Maybe the "history of capitalism" label may provide the tent under which both academic communities can meet fruitfully?³²

Finally, diet change is assessed from the perspective of ethical debates on consumer society, the good life, and the direction of economic change. The case studied here is not an invitation to the radical pessimism of some critics of consumer capitalism. The massification of milk consumption between around 1950 and 1990 contributed to the good life. The "milk battle" was won, and it was probably a battle worth fighting for. What happened afterwards, however, questions any attempt to dismiss the ethical debate by means of Panglossian arguments. The second model of consumption, from 1990 onwards, may not have been the consumerist hell that some identify with the work of John Kenneth Galbraith. It may even have had some echoes of John Maynard Keynes' paradise of satiation, self-satisfaction, and self-control. However, it can hardly qualify as a progressive direction for consumer capitalism in Mariana Mazzucato's sense. Our increasing affluence could have been directed up to a larger extent towards dairy products that were of a higher quality, healthier and more sustainable in environmental terms. The challenge of affluence, to borrow Avner Offer's expression, is in front of us. Not ignoring it is the first step towards succeeding in the "milk battle" of our time.

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³² On the interplay between the history of capitalism and the history of consumption, see in particular van Dam (2015).

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