



Yogurt's flexible image during its rise in popularity in post-war Belgium



Jon Verriet ^{a, *}, Frédéric Leroy ^b

^a Food Studies Research Group (FOST), Faculty of Arts and Philosophy, Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussels, Belgium

^b Research Group of Industrial Microbiology and Food Biotechnology (IMDO), Faculty of Sciences and Bioengineering Sciences, Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussels, Belgium

ARTICLE INFO

Article history:

Received 2 July 2016

Received in revised form

2 September 2016

Accepted 24 September 2016

Available online 26 September 2016

Keywords:

Yogurt

Marketing

Product differentiation

Health food

Advertisements

Women's magazines

ABSTRACT

The consumption of yogurt in Western countries has risen for over a century, first slowly, then more rapidly. The purpose of the present study was to investigate this prolonged phase of growth, by examining the popularity and the projected image of yogurt. A particular focus was on the way these aspects were reflected in consumption patterns and media representations. The data showed how during its period of rapid popularization, yogurt's visibility in the media greatly increased. It was concluded that the product's image was highly flexible in post-war decades, evidenced by the multi-pronged approach taken by marketers. Yogurt was not only advertised as both tasty and healthy, but also as natural and convenient, a strategy that appears to have been informed by consumers' preferences and existing cultural values. This demonstrates how a high degree of product differentiation and diversification during a product's growth stage can result in a heterogeneous image, allowing for a broad range of marketing strategies.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Since its introduction to Western European and U.S. markets over a century ago, yogurt's rising consumption has been remarkable, now being part of everyday life for many Westerners (Tamime & Robinson, 2007). As such, it is a unique dairy product, with a Product Life Cycle (Kotler & Armstrong, 2013) that is significantly stretched and shows little signs of decline. Yet while there is an extensive literature on the preferences and the lifestyles of contemporary yogurt consumers (e.g., Ares, Giménez, & Deliza, 2010; Mawad, Trias, Giménez, Maiche, & Ares, 2015; Possa, de Castro, Marchioni, Fisberg, & Fisberg, 2015; Vecchio, van Loo, & Annunziata, 2016), the product's extraordinary history has often been neglected by scholars. Monographs on yogurt, generally written by food scientists instead of historians, limit their attention to its millennia-old origins (e.g., Chandan, 2007; Tamime & Robinson, 2007). Some smaller works focus on the ancient past of yogurt as part of the 'fermented milk complex' within the region stretching from the South coast of the Mediterranean to Central

Asia (Fisberg & Machado, 2015; Gouin, 1997; James, 1975, p. 32; Nair & Prajapati, 2003). However yogurt's prodigious commercial successes have hardly been broached in scholarly works, two exceptions being an article by Spiekermann (2009) and a PhD thesis by Stoilova (2014). The latter corroborates the above by judging the historiography of yogurt to be 'small and specialized' and 'underdeveloped in applying a broader social analysis to the historical facts' (Stoilova, 2014, p. 22). Spiekermann mostly focuses on the limited pre-war success of yogurt in Germany, while Stoilova provides a technological history, and details the promotion of yogurt as a specifically *Bulgarian* product. She succeeds in laying bare the intricate relations between scientists, governmental agencies, manufacturers, and consumers that resulted in yogurt's complex image. However, she fails, like Spiekermann, to account for the post-war advance of the product in Western countries, and the role of marketers in that process.

The purpose of the present study, then, was to investigate the historical popularity and the image of yogurt in Belgium, as reflected in consumption patterns, media representations, and marketing reports. First and foremost, such an analysis can offer insight into historical food marketing: what strategies were deployed, and why? Secondly, this study's aim was to help understand historical consumer preferences, which have both been shaped by, and have

* Corresponding author.

E-mail addresses: Jon.Verriet@vub.ac.be (J. Verriet), Frederic.Leroy@vub.ac.be (F. Leroy).

shaped, producers' successes and failures. Examining the complex role of media and other cultural mediators in food discourses reminds us that food consumption is influenced by more than just economics (Cronin, 2004; Oldenziel & de la Bruhèze, 2009, pp. 9–39), but also determined by the immediate concerns of a society and its tastemakers (Trubek, 2008).

Belgium is a country that holds a cultural, social, economic and political 'intermediate position' in Europe (Scholliers, 2009, p. 2). Its post-war food industry and consumption patterns saw trends comparable to those of Northwestern Europe in general: a *Green Revolution*, the internationalization of consumer goods, the popularization of convenience foods, and an increasing prominence of cookery and food products in media by way of both editorial content and advertising and commercials (Geyzen, 2014). Focus for this study was on the period 1950–1980. Although yogurt consumption kept rising after 1980 to a current per capita consumption of 16.5 kg per year (GfK Belgium, 2016), this 30-year period is taken as the vital phase within yogurt's ongoing growth stage. It corresponds with a rapid increase in sales volume and increasing public awareness of the product (Van Heghe, 1990; Wegnez, 1995). Moreover, within the broader field of the history of consumption, the period 1950–1980 is of great interest because of societal changes in Western Europe. Such changes encompass the increasing globalization of food production, the rising employment rate among women, and the immense growth in the purchasing power of the average citizen (Scholliers, 1993, pp. 191–193 and 219).

2. Materials and methods

2.1. Quantitative analysis of yogurt consumption

In this paper, 'yogurt' was defined according to Belgian food legislation (MEZ-MD, 1980). More specifically, it refers to milk-based foods that have been fermented by the combined action of *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *bulgaricus*, which have to remain alive in the end-product (thus excluding heat-treated fermented milks). According to the legal stipulations, products in which the amount of fat had been reduced or that contained added aromas, gelatin, starch, sugar, honey, or fruit in amounts below 30% were still considered 'yogurt'. To quantitatively study the popularity of yogurt over the years, consumption figures from a variety of sources, including data from several governmental organizations, were examined to cover the periods 1950–1965 (Ackerman & Verkinderen, 1970), 1966–1981 and 1985 (Tamime & Robinson, 1985; 2007), 1988–1994 (Wegnez, 1995), 1995–2001 (Centrum voor Landbouweconomie, 2000), 2002–2014 (FOD Statbel, 2013), and 2015 (GfK Belgium, 2016). Data for the periods 1982–1984 and 1986–1987 were missing.

To enable comparison with other Western countries, yogurt consumption patterns for Northwestern Europe and the U.S. were charted. Consumption data were available for France for the periods 1966–1981 (Tamime & Robinson, 1985) and 1982–2004 (Insee 2015), for the Netherlands for 1966–1979 (Tamime & Robinson, 1985) and 1980–2005 (Centraal Bureau voor de Statistiek, 2010), for the United Kingdom for 1966–1981 (Tamime & Robinson, 1985) and 1982–2011 (DEFRA, 2012), for (West) Germany for 1966–1981 (Tamime & Robinson, 1985), 1990–1993 (Tamime & Robinson, 2007), 1988 (Van Heghe, 1990), and 2000–2013 (Bundesanstalt für Landwirtschaft und Ernährung, 2014), and for the U.S. for 1966–1974 (Tamime & Robinson, 1985) and 1975–2013 (USDA, 2014).

Sources used unequivocally refer to their data as presenting solely yogurt consumption, except for French figures (1966–1981: yogurt and other fermented milk-based drinks; 1982–2014: yogurt

and fresh milk desserts) and the first two West-German years (1966–1967: yogurt and other fermented milk-based drinks). Transitions between data used by Tamime and Robinson (1985; 2007) and that of national organizations are generally quite smooth, indicating relative consistency of measurements. German figures seem *too* gradual around 1990, when the addition of East German consumption makes little impact – though it is possible yogurt was considerably less popular in this region, or that home production was more common.

As for Belgium, all data allegedly refers to just yogurt as well, and transitions appear to be smooth, though figures from Tamime and Robinson (1985; 2007) are comparatively high. Belgian data of 1950–1965 actually represents domestic production, which according to their source was equivalent to consumption (Ackerman & Verkinderen, 1970). While this is plausible – Stoilova claims exporting yogurt before the late 1960s was 'not possible' (2014, p. 167) – it would perhaps be best to regard consumption figures cited as merely a reasonably accurate approximation for signaling general trends.

2.2. Sources and method for content-based Belgian media analysis

For an analysis of the strategies used by yogurt marketers, advertisements by yogurt manufacturers in a women's magazine and a newspaper were analyzed, as well as the editorial content of both media. For the 1950s to the 1980s, most advertisers opted for magazines and newspapers to reach consumers, as TV and radio commercials were not yet allowed in Belgium. In 1960, 53% of the promotional budget for products was spent on publicity in either magazines or newspapers, whereas by 1969 this number had dropped slightly to 45% (Nederlandsche Kamer van Koophandel, 1973, p. 82). Naturally, both types of 'texts' do not perfectly mirror the hopes and fears of society, but they are at least indicative of certain societal sentiments and may even contribute to their formation (Knijn & Verheijen, 1982; Verriet, 2013). Journalists wrote for an 'implied audience' that, for their part, spent considerable time and money engaging with the values propagated in these media (Livingstone, 1998). Advertisements were not that different: a significant amount of time and money was spent on connecting with an audience (Matheson, 2005). Consequently, although deviations from the norms exhibited in the magazines are not to be excluded, the readership is generally to be considered as receptive (Verriet, 2015). Of course, while both advertisers and editors will sometimes try to stimulate certain attitudes among the population, in trying to create popular products or media it is often more pragmatic for them to draw on existing values.

The women's magazine, of a commercial nature and targeting a broad audience, was titled *Het Rijk der Vrouw* (HRdV, 'Women's Realm'; 1931–1990). Both the content of the food columns and the advertising policies were identical to its sister publication *Femmes d'Aujourd'hui*, targeting the French-speaking population in Belgium ('Women of Today'; 1933–now). The number of copies sold of HRdV, the Dutch variant, fluctuated between about 105,000 (1961) and 165,000 (1980); figures for *Femmes d'Aujourd'hui* are unknown, but if the percentage of readers in the Dutch-speaking region of Flanders is extrapolated to French-speaking Wallonia, then one would expect a combined readership between 200,000 and 300,000 in those years (Flour, Jacques, Marissal, Gubin, & Van Molle, 1994a, b). The content – both editorials and advertisements – was sampled every five years.

The newspaper used was *Het Belang van Limburg* (HBvL, 'Limburg's Interest', 1933–now), a daily Dutch-language regional journal with a catholic background. Since the region of Limburg was a mining area with significant agrarian activity, this newspaper provided a good counterbalance to the more urban, middle-class

women's magazine. Plus, while the total readership of this newspaper has always been less than for Belgium's biggest papers, *HBvL* is a true success story: between 1965 and 1980, its readership grew by 59%—94,600, whereas national newspaper sales declined (by 8%; [De Bens & Raeymakers, 2010](#)). There was a practical element to the choice for *HBvL* as well: it is currently the only Belgian newspaper that has been fully digitalized for the years 1950–1980.

Besides a quantitative analysis of the number of editorials and advertisements dealing with yogurt, a more image-based content analysis of the women's magazine and the newspaper was carried out. Both sources were processed inductively, as to extract the dominant selling points in the historical promotion of yogurt. Focus was on the following research questions: 'what combination of words is used?' and 'how did the promotion of yogurt change over time?' Recurring themes were identified in the advertisements and their codification allowed for the quantification of relative (diachronic) importance. The main focus was, however, on the setting forth of a synthesis of the varied sources, giving them the space to both support and contradict each other.

3. Results

3.1. Quantitative analysis of yogurt consumption

The consumption of yogurt per capita in Belgium was reconstructed from a variety of sources for the period 1950–2015 ([Fig. 1](#)). This analysis indicated that the growth per decade was the highest for the 1950s and 1960s (in both cases by a factor of 2.8). The latter was partly due to yogurt's humble beginnings, as consumption per capita stood at a modest 0.37 kg per year in 1950. Hence, pre-war consumers presumably consisted of a niche audience of early adopters. The lack of interest among a broader audience can partly be explained by yogurt's relatively high price, but it was also marketed as an exotic product that helped alleviate very specific health problems, which perhaps turned off a considerable group of potential consumers ('Ask your doctor', *HBvL*, 24 April 1933, p. 4; [Stoilova, 2014](#)). It should also be noted that yogurt is unlike other dairy products, in that a significant level of home production during

its early period is unlikely. Since the commercial ready-made product entered Western markets at the same time as its home-made counterpart, home production lacked its usual head start. Furthermore, neither ferments nor yogurt makers were advertised in *HBvL* before World War II, but they could be found in Dutch newspapers, and appear to have been rather expensive (e.g., *De Telegraaf* 8 April 1913); *Algemeen Handelsblad* (20 July 1933). Another factor limiting home production was probably the high failure rate in making yogurt, even in professional factories ([Spiekermann, 2009](#)).

After the Second World War the average yearly growth in per capita consumption for the period of 1950–1980 was a spectacular 10%. Within a Western context, Belgium was and remains a moderate consumer of yogurt ([Fig. 2](#)). From a global perspective, however, the country is in the upper tier, along with several Western and Middle-Eastern countries. While consumption in other regions of the world appears to be on the rise as well, so far it has proven comparatively modest ([Tamime & Robinson, 1985; 2007](#)). Although there are significant differences within the group of Western countries, the overall trend is very similar. In general, yogurt consumption has always been more of a continental phenomenon, interest in the UK and the U.S. having been somewhat weaker ([Fig. 2](#)).

The size and strength of the national dairy industry appears to have had a predictive value for the popularity of yogurt, as evidenced by both the Netherlands and France ([Lalau, 1991](#)). Yet, the dissimilar historical appreciation of dairy products among European nations, influenced by the varying incidence of lactose intolerance, probably also played a role ([Albala, 2000](#)). Variety in domestic yogurt production (especially in the early years) may have contributed as well. A full analysis of the deviations between these countries goes beyond the purpose of this paper and would require a more dedicated approach, the aim of this comparison being merely to highlight Belgium's overall position.

For Belgium, the rise in per capita consumption is explained in large part by the fact that the number of Belgians eating (modest quantities of) yogurt increased. In the year 1980, 61% of families reported at least one yogurt purchase. By the end of the 1980s,

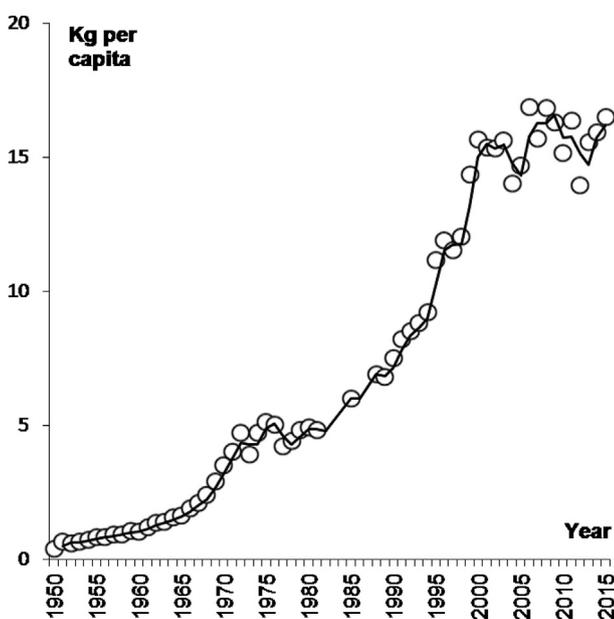


Fig. 1. Evolution of the yearly consumption of yogurt (kg per capita) in Belgium for the period 1950–2015. The moving average trend line was constructed using a period of two.

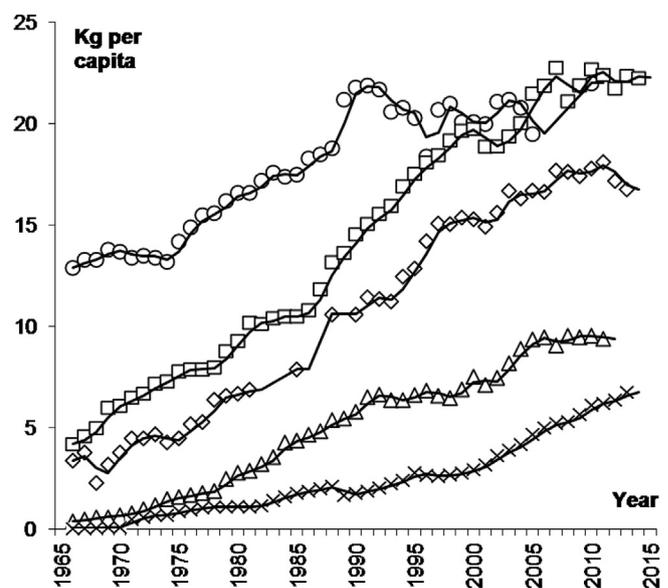


Fig. 2. Evolution of the yearly consumption of yogurt (kg per capita) in Northwestern Europe (○, The Netherlands; □, France; ◇, (West) Germany; △, United Kingdom) and the U.S. (×) for the period 1966–2014. The moving average trend lines were constructed using a period of two.

market penetration rose to 69% and climbed even further to 87% in 1994 (Van Heghe, 1990, p. 17; Wegnez, 1995, p. 23). By then, the product was fully integrated into national consumption patterns, and most Belgians ate yogurt one to three times a week (Wegnez, 1995, p. 30). Yet by 1992, when consumption had already risen significantly, marketers still spoke of a 'nice potential for growth' (Wegnez, 1995, p. 28). More recently, however, yogurt consumption seems to have reached a peak: market penetration had reverted to 84% in 2010 while per capita consumption had stagnated (Veillard, 2011, p. 8). One explanation for the latter trend may be the economic downturn, especially since Belgians generally see yogurt as an expensive product: a recent survey found that consumers in fact overestimated the price of yogurt considerably (by a factor of two; Veillard, 2011, p. 10). There are some signs that the 'health image' of the product is also not as solid as it once was: in a 2007 survey, only 54% of Belgians called yogurt 'essential to a good diet' (compared to 86% of French consumers; TNS, 2007).

The production of yogurt concentrated and scaled up quickly after World War II. For dairy producers struggling to offload their milk and butter, yogurt represented a new opportunity for increasing turnover. By 1968, there were 40 Belgian yogurt manufacturers, though two thirds of total production was in the hands of only seven companies. By then, 90% of production took place in the provinces of East-Flanders, Brabant (including Brussels) and Antwerp, meaning yogurt production was dominated by the Dutch-speaking regions of Belgium (De Baere, 1971, p. 57). Yogurt always remained a relatively expensive product: from 1964 to 1990, its price per liter rose by a factor of 5, while the Belgian GDP per capita only rose by a factor of 2.1 (Bolt & van Zanden, 2013; De Proft & Lenders, 1991, p. 8; Degraeve & Verkinderen, 1965, p. 13).

A yogurt-consuming Belgian household was typically composed of two relatively affluent, young urbanites with young children (Ackerman, Dumeez, & Verkinderen, 1968). In 1973, the Belgian Center for Agricultural-Economic Research did a study to gauge the perception that Belgian housewives had of yogurt consumers, and the reported image was very similar: modern, affluent, young, with children (Coussement, 1973). Thirty years later, most Belgians occasionally ate yogurt, yet the largest consumers were still young, affluent families (Duquesne, 2004). To understand this relationship, an analysis of the projected image of yogurt, as well as some of the values of consumers, is performed below.

3.2. Yogurt in Belgian media: a quantitative content analysis

As yogurt became more popular over the years, its presence in Belgian media grew, as could be observed in both the women's magazine *HRdV* and the newspaper *HBvL*. From 1955, *HRdV* printed a weekly menu to advise families on what to eat. In that first year, nine yogurt desserts were proposed over the course of 52 weeks, but it soon featured more regularly in menus. At its peak, in 1970, there was yogurt on the menu for 45 out of 53 weeks. For all years combined, half the number of weeks featured yogurt. Actual recipes involving yogurt were scarce: one in 1975 and 1980 each, meaning that from 1950 to 1980, yogurt was not seen as an ingredient for cooking.

The editorial content of the newspaper *HBvL* showed a similar pattern. On average, yogurt was mentioned on one in 510 pages, where reports on yogurt-related news increased over time (1950–1964: once in 846 pages, 1965–1980: once in 437 pages). Such numbers might seem low, but while yogurt-related news was of course not a staple, the product was still mentioned, for example, nearly twice as many times as buttermilk. Articles on yogurt were almost all positive: six out of 359 pieces could reasonably be called negative. The most striking negative report was on 5 January 1966 (p. 7), when the newspaper published a story on dead mice found in

Dutch yogurt bottles. However, such instances of negativity were always isolated, and the newspaper never followed up on them.

In contrast to editorial content, the data for advertisements in *HBvL* were more irregular. Between 1950 and 1980, only 82 advertisements for yogurt were printed in the newspaper. This increased the potential impact for a single company. In 1959, for instance, there were 12 mentions of Bevita yogurt, more advertisements than for the rest of the 1950s combined. There was no discernable diachronic pattern for yogurt advertisements in the newspaper. In *HRdV*, however, a clear trend could be found. A total of 159 yogurt advertisements was published in the magazine during the years sampled, but while 1950–1960 encompassed only 10 of these (2% of total food advertisements), 142 of the 159 advertisements were published in 1970–1980 (4%). Moreover, the advertisements in the magazine were larger and, from 1970 onwards, often in color.

3.3. Yogurt in Belgian media: an image-based content analysis

3.3.1. Identification of product types and selling points

The content analysis of both media sources revealed that a variety of yogurt types was present, potentially permitting for different layers of the product's image. By 1968, around 200 types of yogurt were sold in Belgium, all brands combined: 'natural', skim, or with added sugar, syrup, or fruits. They usually came in ½-liter and 1-L bottles, although by the 1980s, smaller, plastic packaging was entering the market (Ackerman & Verkinderen, 1970; Van Heghe, 1990). Product diversification encompassed differences in taste, additions, or a reduced fat-content, while brand differentiation generated a broad array of deployed selling points. Eight different recurring themes were found in over 10% of yogurt advertisements, clustered along the following selling points: (1) taste, (2) health, (3) nature/natural, (4) children, (5) convenience, (6) freshness, (7) the possibility of various eating moments, and (8) affordability (Table 1). The larger and more colorful magazine advertisements proved a better medium for presenting product diversification: they displayed on average 3.3 different yogurt products, whereas the newspaper advertisements displayed only 1.3. These smaller and simpler newspaper advertisements featured 2.8 selling points on average, whereas the advertisements in the magazine contained 3.5 selling points. The former occasionally featured no selling points at all, consisting of little more than a brand name. (e.g., 'Nutrella', *HBvL*, 22-02-1969, p. 7). All selling points, then, had a higher frequency in *HRdV*, except for 'affordability', one of the lesser-used selling points.

3.3.2. Taste and health as dominant selling points

Perhaps unsurprisingly for a food product, (superior) taste was a major selling point. In the specific case of yogurt, the overall image was also heavily supported by its perceived healthiness. From a quantitative point of view, both aspects were therefore identified as the leading selling points.

'Taste' was emphasized in almost 70% of the yogurt advertisements. Since 'good taste' is an abstract concept, all references in this category were explicit. Advertisers often opted for the straightforward 'tasty' ('lekker'; e.g., *HBvL* 12 January 1979, p. 16), 'very tasty' ('héél lekker'; e.g., *HRdV*, 1975 (#1591) p. 102) or 'appetizing' ('smakelijk'; e.g., *HBvL*, 23 May 1961, p. 12). Occasionally, they decided on the more fanciful 'delightful' ('heerlijk'; e.g., *HBvL*, 7 June 1953, p. 4) or 'a true delicacy' ('een echte lekkernij'; e.g., *HRdV*, 1960 (#793) p. 70). References to specific taste qualities were few and scattered, e.g., 'extra mild' ('extra zacht'; *HBvL*, 27 July 1979, p. 1). Some evidence exists of consumers speaking favorably of yogurt's taste: a previously cited survey from 1973 among Belgian housewives found that to them, yogurt with fruit was the tastiest dairy

Table 1
Selling points in yogurt advertisements in *Het Rijk der Vrouw* (HRdV) and *Het Belang van Limburg* (HBvL), 1950–1980.

	Total advertisements	Taste	Health	Nature	Children	Convenience	Fresh	Eating moments	Affordability
HRdV	159	123	89	96	72	59	70	48	15
HBvL	83	45	46	24	15	28	13	14	12
Total	242	168	135	120	87	87	83	62	27
% of total advertisements		69%	56%	50%	36%	36%	34%	26%	11%

product on the market (Coussement, 1973). Although all yogurt was marketed as ‘tasty’, consumers increasingly opted for varieties with additives. In 1975, 27% of all yogurt sold featured fruit, sugar or aroma; by 1989, this share had risen to 48% (Van Heghe, 1990, p. 12).

There is a consensus in the literature that yogurt derived (and still derives) much of its popularity from a healthy image, not just during the twentieth century (Stoilova, 2014; Tamime & Robinson, 2007), but in the 21st century as well (Luckow, Moskowitz, Beckley, Hirsch, & Genchi, 2005; Valli & Traill, 2005). In general, this parallels positive health discourses within the academic field of life sciences (e.g., Adolfsson, Meydani, & Russell, 2004; Bourlioux & Pochart, 1988; Glanville, Brown, Shamir, Szajewska, & Eales, 2015). Yogurt’s purported beneficial effect on one’s health featured in over half of all sampled advertisements, even when using a list of just six health-related terms (‘health’, ‘slender’, ‘figure’, ‘nutritious’, ‘calories’, and ‘young’).

The goal of maintaining a slender figure was often included in the advertisements, either by using the text and image of the advertisement (‘Beauty, health ... taste yogurt’; Fig. 3), or the actual name of the product, like ‘Jacky Mannequin’ or ‘Taillefine’, the latter being a product that ‘will never make you fat’ (resp. HRdV, 1970 (#1301) p. 240; HRdV, 1980 (#21) p. 158; HBvL, 5 January 1979, p. 14). The implication that slim equaled good health was persistent, and not exclusive to Belgium (Belasco, 2012; Levenstein, 1993).

The editorial content of the newspaper and the women’s magazine worked in tandem with the advertisements. One of the tropes of ‘yogurt news’ in HBvL was a report in which some ‘exotic’ person had reached an astonishing age while following a yogurt diet. ‘Act like a Bulgarian ... Drink yogurt and become a centenarian’, read one headline (HBvL, 24 June 1951, p. 6). This type of article was very common before World War II (Stoilova, 2014), but it is somewhat surprising to see the tradition last until at least 1976. Between 1950 and 1980, seven of such stories were published. In 1955, the theme reached its peak, when a Turkish woman was said to have obtained the impressive age of 173 by primarily eating yogurt (HBvL, 9 August 1955, p. 3).

Most newspaper articles involving yogurt, however, gave dieting tips (42 times). Another recurring theme was yogurt as a component of an athlete’s diet (11 times), which also fed into the idea of yogurt as a health food: apparently its consumption facilitated sporting achievements. Sometimes there was even mention of yogurt helping to cure cancer (HBvL, 2 August 1959, p. 4) or offering protection against nuclear radiation (HBvL, 14 January 1957, p. 4). In contrast, HRdV made little mention of yogurt, but when it did, it was also in the context of diet and nutrition (e.g., ‘Health and Diet: The Nutrition of the Elderly’, HRdV, 1960 (#812) p.41; ‘The Role of Milk and Milk Products in our Daily Nutrition’, HRdV, 1970 (#1328) p. 57, 61). A 1975 special about making one’s own yogurt again stressed health aspects of this ‘milk of eternal youth’, saying it was useful in ‘several diets, for both the sick and the healthy’ (HRdV, 1975 (#1553) pp. 69–71).

Attitudes about eating foods viewed as fatty changed considerably during the post-war decades. In 1960, for example, HRdV told readers to make sure to eat more sugar and fat during wintertime to keep from growing weak (HRdV, 1960 (#809) p. 31).

In contrast, an advertising campaign for yogurt from 1975 showed a woman’s waist, and warned readers that ‘Belgium [was] eating well, but too much and too fatty’ (HRdV, 1975 (#1556) p. 106). In the newspaper too, we see a slight shift: in 1962, readers were encouraged to eat yogurt as part of a diet for *putting on weight* (HBvL, 24 August 1962, p. 4), yet by 1968, at least skim yogurt was viewed as a product that would help in *losing weight* (HBvL, 9 April 1968, p. 9). It seems that in the early 1960s, the attitude was still ‘Eat what you want after you have eaten what you should’, as one famous nutritionist had said before the war (Haughton, Dye Gussow, & Dodds, 1987, p. 170), whereas by 1991, a survey among Belgian catering industry employees found that although most chefs preferred not to serve yogurt – they saw it as food for ‘sick people’ – they nonetheless appreciated the fact that it ‘did not add to the total fat content of a meal’ (Ackerman & Van Heghe, 1991, p. 82). Post-war nutritionists employed an ‘anti-fat rhetoric’, and producers of ‘low-fat’ foods profited from its popularization in several media (Scrinis, 2013, p. 76). Though yogurt was not seen as fatty, its skimmed version did well in the post-war decades. In 1953 its consumption comprised 6% of whole yogurt consumption, growing to 58% in 1963 (Vertessen, Van Heghe, & Boddez, 1964, p. 66). After the early 1970s, whole yogurt increased its lead over the skimmed version again (Van Heghe, 1990, p. 12).

Spiekermann (2009, p. 303) claims that in Germany, the success story of yogurt did not begin until marketers ‘stopped positioning [it] as a health food and started projecting the image of a tasty and convenient snack’. However, this statement is not quantified, nor does it reflect the situation in Belgium. There is no clear-cut diachronic trend: ‘convenience’ and ‘taste’ were selling points as early as the 1950s, and though ‘health’ loses some of its importance, it is still a selling point from 1970 to 1980 in 52% of all advertisements. It appears that in Belgium, marketers never ‘stopped’ positioning yogurt as a health food throughout 1950–1980. The variety of efforts to promote yogurt’s association with good health exhibits the flexibility of the product’s image. Staying young, curing illness (from the common cold to cancer), gaining weight, or losing weight: yogurt was presented as a solution to a great variety of health issues. It should be noted that it is unlikely that some of the more fantastical editorials on nearly 200-year old Bulgarians managed to make a fundamental and lasting contribution to the popularity of yogurt in Belgium. It is more plausible that what did stick over time was not one specific story on the product’s miraculous benefits, but a more general association of yogurt with health issues and healthy living.

3.3.3. Children, naturalness, and freshness

While children have been counted as a different ‘selling point’, the purported health benefits of yogurt and marketing towards parents often went hand in hand. This is illustrated by catchphrases such as: ‘Your wish? For your children to be able to eat fresh, natural yogurt every day’ (HRdV, 1975 (#1594), p. 22). With this focus on the diet of children, yogurt marketers latched onto what may be called a post-war societal preoccupation: parents, spurred on by marketers and scientists, became increasingly preoccupied with children’s nutrition (not just in Belgium; Scholliers, 2009; Julier, 2012; Verriet, 2013). Pictures of children featured heavily in

schoonheid,
gezondheid...

proef

YOGHURT
Stassano

EEN GEZOND VOEDSEL
EEN ECHTE LEKKERNIJ

Naar keuze : natuurlijke
witte gesuikerde
gearomatiseerde en gesuikerde
half-vette (portie voor 1 persoon)
magere

STASSANO YOGHURT - DE FIJNSTE YOGHURT

Fig. 3. Stassano advertisement in *Het Rijk der Vrouw*, 1960 (#801) p. 2. © FrieslandCampina. Reproduced with permission of FrieslandCampina. Permission to reuse must be obtained from the rights holder.

yogurt advertisements (in little over one-third of all cases), along with texts such as 'Growing up isn't a children's game' (*HRdV*, 1980 (#26) p. 127) or 'Katrien would sell her soul for a yogurt with strawberries' (*HRdV*, 1975 (#1570) p. 122). *HBvL* published 10 different articles on the diet of children that featured yogurt. It is an example of how marketing yogurt often did not consist of forcing new beliefs onto consumers, but instead playing into values that were already been agreeable to many.

Parents and policymakers believed in the beneficial effects of yogurt, regardless of the preferences of children themselves. In 1968, only one in three children had a say in their own dairy consumption; most parents compelled them to drink milk or eat yogurt (*Ackerman, Dumeez, & Verkinderen, 1968*, p. 92). The association between yogurt consumption and children proved durable. One study found that by 1990, 65% of Belgian schools sold yogurt (*Ackerman & Van Heghe, 1991*), while in 2009, Belgian mothers were found to offer their children yogurt for dessert, even

though those children preferred other dairy desserts (*Égérie Research 2009*). In 2007, more than 70% of Belgian children aged between one and eleven were found to consume at least one yogurt per week (*TNS, 2007*). In other countries, such as France and the Netherlands, yogurt consumption is also still comparatively high among young children (*Bourlioux, Braesco, & Mater, 2011; Sluik & Feskens, 2013*). One survey from 1968 among 2000 Belgian families found that parents were convinced milk and other dairy products made their children healthier, though their level of interest appears to have been rather shallow: only 13% of them was able to name one or more of the vitamins that these dairy products contained (*Ackerman, Dumeez, & Verkinderen, 1968*, p. 104).

In just under half of all advertisements, yogurt was associated with 'nature' or the 'natural'. These references could be textual, e.g. '100% natural' (e.g., *HRdV, 1975 (#1569) p. 30*). However, since the theme of 'nature' lends itself well to the use of images, actual depictions of nature made up a considerable part of this category.

While sometimes purely decorative (e.g., a couple of flowers; *HBvL*, 19 March 1979 p. 2), often the scenes were related to the production process, featuring orchards (e.g., *HBvL*, 27 March 1975, p. 22) or a cow and its calf (e.g., *HRdV*, 1980 (#50) p. 26). The importance of this selling point may be slightly overstated, however, since plain yogurt - no sugar added - was often sold as 'natural yogurt' in Dutch ('*yoghurt natuur*'), without the pastoral implications.

'Fresh' and 'natural' - like 'health' and 'children' - often overlapped: 40 out of the total of 83 advertisements featuring the 'fresh' selling point also contained a reference to 'nature'. Here, 'fresh' ('*vers*') has a double meaning: it can mean either refreshing, or recently produced. It appears that 'fresh' was an important selling point for the dairy sector. Notably, a national study from the early 1980s among 632 families indicated that 69% of Belgians felt that milk no longer tasted as 'fresh' as it used to taste ([Ackerman, Callier, & Van Heghe, 1981](#), p. 32). In 1973, a panel of consumers also stressed the importance of the freshness of foods, while simultaneously strongly associating the words 'fresh' and 'healthy' ([Coussement, 1973](#)). Hence while a critical examination of the advertisements in the dataset may view 'natural', 'healthy', and 'fresh' as three wholly different ascribed qualities, it is important to consider the possibility that in the minds of consumers, all three were related. Similarly, while perhaps the public's positive evaluation of 'freshness' was one evoked by advertisers, the reverse is also feasible: it could be that consumers' favorable stance toward 'freshness' was the reason for the use of the concept in advertisements.

3.3.4. Convenience, the possibility of various eating moments, and affordability

'Convenience' featured in a little over one-third of all yogurt advertisements. Because of the rather abstract nature of the concept, most references were textual. While (plastic) bottles or cups were sometimes presented as 'handy' ('*handig*'; e.g., *HBvL*, 5 April 1968, p. 3) or practical ('*praktisch*'; e.g., *HRdV*, 1975 (#1560) p. 72), this selling point was, paradoxically, often employed for products that demanded a little extra effort, such as yogurt powder or yogurt makers (e.g., *HBvL*, 2 July 1959, p. 10; *HRdV*, 1975 (#1565) p. 117). It appears that the definition of 'convenience' changed over time, meaning industrially produced yogurt was increasingly seen as the norm, whereas home-made yogurt appeared more and more bothersome ([Degreef, 2015](#)). Hence, the use of the 'convenience' selling point may have actually been a defensive strategy for an apparently less-than-convenient product. Regardless, home production saw a short burst of popularity in the 1970s: consumer magazines implored readers to try for themselves, while most of the 18 (out of 242) advertisements for yogurt makers in the dataset were from the 1970s. By the 1980s, home production had again grown out of style ([Degreef, 2015](#)).

In the suggested menus of *HRdV*, a preference for a specific time of day could not be discerned: yogurt featured as a midday dessert 46 times, and as an evening dessert 55 times. Furthermore, in advertisements, yogurt was presented as a suitable breakfast or a snack ('*versnapering*', *HRdV*, 1965 (#1045) p. 110), or as all of the above: 'So easily digestible that it is suited for every moment: mornings, afternoons, for tea, or while watching TV in the evening' (*HRdV*, 1980 (#25) p. 34). Here, product diversification and differentiation coincided: new packaging allowed for new marketing possibilities. Just as advertisers' strategies displayed the flexibility of yogurt's image by attaching the product to several culturally resonant mentalities ('health', 'children', 'natural', 'convenience'), they also tried to propagate flexibility when it came to eating moments, marketing yogurt as a suitable breakfast, a late-night snack, and everything in between.

Lastly, affordability was a selling point in 11% of the yogurt

advertisements. Most of these references were somewhat non-specific: 'cheap' (*HRdV*, 1955 (#513) p. 8), 'costs less money' (*HBvL*, 26 April 1969, p.7), or 'economical' (*HBvL*, 8 April 1977, p. 8). Only 13 out of 242 advertisements mentioned an actual price. From 1950 to 1980, yogurt was not a particularly cheap product (see 3.1). And while two marketing reports from 1990 to 2011 separately concluded that price was of 'secondary importance' to consumers ([Van Heghe, 1990](#), p. 36; [Veillard, 2011](#)), yogurt was still seen as a comparatively fancy food product in the decades immediately following World War II, which, along with its price, must have limited its appeal to those with modest budgets (see 3.4).

3.4. The image of yogurt and the dairy sector

A 1990 survey by the Center for Information on the Media asked Belgian consumers for their motivations for yogurt consumption. The number-one reason for consuming yogurt - mentioned by 49% of all interviewees - was its perceived health benefit. 'Good taste' finished second (39% of interviewees). Further health-related reasons were its low calorie count (20%) and that it 'balanced one's nutrition' (19%). Convenience was an important factor as well, with consumers mentioning the fact that yogurt could be consumed at any moment of the day (31% of respondents), that it was 'practical' (16%) and that one could eat it 'anywhere' (10%). Furthermore, 29% of consumers ate yogurt for its 'natural' qualities ([Wegnez, 1995](#), p. 31). The study shows the high level of congruity reached between the projected image of yogurt and consumer preferences. Contemporary studies from countries like Finland, Uruguay, and France point towards both the persistence and the cross-cultural prevalence of several consumer motives (health benefits, convenience, naturalness, freshness, price) ([Ares, Giménez, & Deliza, 2010](#); [Bouteille, Cordelle, Laval, Tournier, Lecanu, This, & Schlich, 2013](#); [Pohjanheimo & Sandell, 2009](#)).

One survey found that Belgian yogurt manufacturers hired more marketing personnel during the 1960s than any other type of dairy producer ([Ackerman & Verkinderen, 1970](#)). Presumably they wanted to get the presentation of the product to a broader audience just right. Historically, however, yogurt marketing had often been spurred on by scientists and governmental organizations as well ([Spiekermann, 2009](#); [Stoilova, 2014](#)). The Belgian dairy industry struck hard times in post-war decades, leading to extensive financial governmental support ([Niesten, Raymaekers, & Segers, 2004](#)). What is more, the NDALTP (Nationale Dienst voor Afzet van Landen Tuinbouwprodukten; 'National Agency for the Distribution of Agri- and Horticultural Products') even had advertisements for yogurt printed in *HBvL* (e.g., 19 March 1979, p. 2) and some of the cited marketing reports were in fact commissioned by this agency. Regardless, the success of yogurt and its positive image is remarkable considering the decline in consumption for dairy products such as milk and butter in Belgium, as well as in the United Kingdom, the Netherlands, and France ([De Proft, 1993](#); [Van Heghe, 1990](#)). Great sums were spent on increasing dairy consumption, generally sorting very little (positive) effect ([Niesten, Raymaekers, & Segers, 2004](#)). Neither did fresh cheese or buttermilk, with their somewhat similar taste and structure, present serious competition for yogurt. As the popularity of yogurt kept rising during the 1970s and 1980s, buttermilk consumption plummeted ([Van Heghe, 1990](#)). Fresh cheese was different, though while its consumption did increase significantly, it never reached the heights of yogurt ([Ackerman, 1977](#); [De Proft & Lenders, 1991](#)). It seems then, that the increasing popularity of yogurt in Belgium in the period 1950–1980 can partly be explained by a consumer desire for goods that had previously been considered luxury goods, evidenced by the move from cheaper, more mundane dairy goods (milk, buttermilk) to more expensive ones (fresh cheese, yogurt).

Fresh cheese being – like buttermilk - more mundane to consumers and having a higher fat content (USDA, 2015) may have been decisive for yogurt's broader popularity. In 1973, Belgian housewives called buttermilk 'traditional', a product they would not serve to guests or even be seen drinking in public. To them, yogurt connoted the opposite: both tasty and somewhat luxurious, the product was seen as urban, healthy, and a product of the future (Coussement, 1973; De Proft & Lenders, 1991).

4. Conclusion

The rise in yogurt consumption in several Western countries during the twentieth century was exceptional. In Belgium, there was a concurrence between the consumption of yogurt and its increasing presence in editorial content and advertising. In all likelihood the process went two ways: yogurt's increasing visibility, and more importantly its perpetual association with concepts valued by consumers, tempted many to try the product, whereas the increase in consumption meant that it made sense for editors to include the product in their cookery columns. In this period, advertisers succeeded in broadening the appeal of the product beyond what one marketer had hyperbolically called: 'existing yogurt eaters... whose habits include half an hour of inverted perpendicular meditation before meals' (Jones, 2005, pp. 282–283). To increase market penetration, advertisers made grateful use of yogurt's flexible image. The relatively new product constituted a blank slate, making associations with broad variety of – sometimes overlapping - consumer values possible. While governmental organizations, scientists and especially marketers did their best to influence consumer preferences – towards greater appreciation of 'healthy' products, for example – it seems probable, perhaps even natural, that the public informed many of the decisions of professionals in presenting yogurt as well.

The history of yogurt (in Belgium) thus reveals a striking concurrence of product differentiation and diversification and a serious rise in consumption. This demonstrates how marketers' efforts, influenced by consumer preferences, can result in a heterogeneous image, allowing for a broad range of marketing strategies. In the end, it helps to get a better sense of the interplay between marketers and consumer preferences, revealing how consumers project hopes onto food products, to improve the health and lives of themselves and their children.

Funding

This work was supported by the Danone Institute Belgium. The authors also acknowledge financial support of the Research Council of the Vrije Universiteit Brussel, in particular the HOA project 'Artisan quality of fermented foods: myth, reality, perceptions, and constructions' (grant HOA21) and the Interdisciplinary Research Program 'Food quality, safety, and trust since 1950: societal controversy and biotechnological challenges' (grant IRP2).

Acknowledgements

Many thanks to Filip Degreef for comments on earlier versions of this paper, and to Tô-Anh Nguyen and Daniel Lanteir for help with tracking down data.

References

- Ackerman, L. (1977). *De Belgische gezins aankopen van zuivelproducten in 1975*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Ackerman, L., Callier, K., & Van Heghe, G. (1981). *Konsumentenonderzoek op de markt van consumptiemelk*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Ackerman, L., Dumez, M., & Verkinderen, A. (1968). *De consumptie van melk in België*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Ackerman, L., & Van Heghe, G. (1991). *Onderzoek naar de ontwikkeling van een marketingstrategie voor de afzet van zuivelproducten in grootverbruik*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Ackerman, L., & Verkinderen, A. (1970). *De commercialisatie van vloeibare melkderivaten*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Adolfsson, O., Meydani, S. N., & Russell, R. M. (2004). Yogurt and gut function. *American Journal of Clinical Nutrition*, 80(2), 245–256.
- Albala, K. (2000). Milk: Nutritious and dangerous. In H. Walker (Ed.), *Milk: Beyond the dairy. Proceedings of the Oxford symposium on food and cookery* (pp. 19–30). Totnes: Prospect Books.
- Ares, G., Giménez, A., & Deliza, R. (2010). Influence of three non-sensory factors on consumer choice of functional yogurts over regular ones. *Food Quality and Preference*, 21, 361–367. <http://dx.doi.org/10.1016/j.foodqual.2009.09.002>.
- Belasco, W. J. (2012). Body and soul. In A. Bentley (Ed.), *A cultural history of food in the modern age* (pp. 165–182). London/New York, NY: Berg.
- Bolt, J., & van Zanden, J. L. (2013). GDP per capita. *Clio-Infra*. <https://www.clio-infra.eu/datasets/indicators>. Consulted 30.06.16.
- Bourlioux, P., Braesco, V., & Mater, D. D. G. (2011). Yaourts et autres laits fermentés. *Cahiers de Nutrition et de Diététique*, 46(6), 305–314. <http://dx.doi.org/10.1016/j.cnd.2011.07.001>.
- Bourlioux, P., & Pochart, P. (1988). Nutritional and health properties of yogurt. *World Review of Nutrition and Dietetics*, 56, 217–258.
- Bouteille, R., Cordelle, S., Laval, C., Tournier, C., Lecanu, B., This, H., & Schlich, P. (2013). Sensory exploration of the freshness sensation in plain yoghurts and yogurt-like products. *Food Quality and Preference*, 30, 282–292. <http://dx.doi.org/10.1016/j.foodqual.2013.06.012>.
- Bundesanstalt für Landwirtschaft und Ernährung. (2014). http://www.ble.de/SharedDocs/Downloads/01_Markt/09_Marktbeobachtung/02_MilchUndMilcherzeugnisse/JaehrlicheErgebnisse/01_Deutschland/Dt_VersorgungVerbrauch/406003002_02.xlsx?__blob=publicationFile. Consulted 30.06.16.
- Centraal Bureau voor de Statistiek. (2010). Voedings- en genotmiddelen; consumptie per Nederlander, 1899–2009. <http://statline.cbs.nl/Statweb/publication/?VW=T&DM=SLNL&PA=37154&D1=10&D2=81-110&HD=150806-1624&HDR=G1&STB=T>. Consulted 30.06.16.
- Centrum voor Landbouweconomie. (2000). *Landbouwstatistisch jaarboek*. Brussels.
- Chandan, R. C. (2007). *Manufacturing yogurt and fermented milks*. Ames, IA: Blackwell Publishing Ltd.
- Coussement, I. (1973). *De motivering van de consumptie van zuivelproducten*. Heverlee: Center for Agricultural-Economic Research.
- Cronin, A. M. (2004). Regimes of mediation: Advertising practitioners as cultural intermediaries? *Consumption, Markets and Culture*, 7(4), 349–369. <http://dx.doi.org/10.1080/1025386042000316315>.
- De Baere, J. (1971). *Een eeuw Belgische zuivelgeschiedenis*. Leuven: Ceuterick.
- De Bens, E., & Raeymakers, K. (2010). *De pers in België: het verhaal van de Belgische dagbladenpers gisteren, vandaag en morgen*. Leuven: LannooCampus.
- De Proft, J. (1993). Quand le beurre devient fromage et yaourt. *Le Lait et Nous*, 1, 20–25.
- De Proft, J., & Lenders, S. (1991). *Gezins aankopen van voedingsproducten in 1990: LEI-gebruikerspanel*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- DEFRA. (2012). *UK household purchased quantities of food and drink: Averages per week per week*. National Archives, Department for Environment, Food & Rural Affairs. <http://webarchive.nationalarchives.gov.uk/20130103014432/http://www.defra.gov.uk/statistics/foodfarm/food/familyfood/nationalfoodsurvey/>. Consulted 30.06.2016.
- Degraeve, F., & Verkinderen, A. (1965). *De distributie van zuivelproducten in België - deel II*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Degreef, F. (2015). Convenience foods, as portrayed by a consumer organisation. *Test-Aankoop/Test-Achats (1960–1995)*. *Appetite*, 94(11), 26–33. <http://dx.doi.org/10.1016/j.appet.2015.03.005>.
- Duquesne, B. (2004). *Rapport 2004: Filière lait. Gembloux*. Faculty of Agronomic Sciences.
- Égérie Research. (2009). *Etude de marché sur des produits permettant la diversification de la gamme 'La Bande Des FéLait' via 2 offres 'Snack Fromage' et 'Yaourt Fermier'*. Brussels.
- Fisberg, M., & Machado, R. (2015). History of yogurt and current patterns of consumption. *Nutrition Reviews*, 73(S1), 4–7. <http://dx.doi.org/10.1093/nutrit/nuv020>.
- Flour, E., Jacques, C., Marissal, C., Gubin, E., & Van Molle, L. (1994a). *Bronnen voor de geschiedenis van de vrouwenbeweging in België - deel 2: Repertorium van de feministische en de vrouwenpers 1830–1994*. Brussels: Michiels.
- Flour, E., Jacques, C., Marissal, C., Gubin, E., & Van Molle, L. (1994b). *Répertoire des sources pour l'histoire des femmes en Belgique - Tome 1: Répertoire de la presse féminine et féministe en Belgique 1830–1994*. Brussels: Michiels.
- FOD Statbel. (2013). *Bevoorradingbalansen*. <http://statbel.fgov.be/nl/modules/publications/statistiques/economie/Bevoorradingbalansen.jsp>. Consulted 30.06.16.
- Geyzen, A. (2014). *Culinaire vererfgoed in Vlaanderen tussen 1945 en 2000. Een historisch-gastrolinguïstische analyse*. Brussels: Vrije Universiteit Brussel (PhD Thesis).
- GfK Belgium. (2016). *Index evolutie yoghurt thuisverbruik*. Internal report.
- Glanville, J. M., Brown, S., Shamir, R., Szajewska, H., & Eales, J. F. (2015). The scale of the evidence base on the health effects of conventional yogurt consumption:

- Findings of a scoping review. *Frontiers in Pharmacology*, 6, 246. <http://dx.doi.org/10.3389/fphar.2015.00246>.
- Gouin, P. (1997). Ancient oriental dairy techniques derived from archaeological evidence. *Food and Foodways*, 7(3), 157–188. <http://dx.doi.org/10.1080/07409710.1997.9962063>.
- Haughton, B., Dye Gussow, J., & Dodds, J. M. (1987). An historical study of the underlying assumptions for United States food guides from 1917 through the Basic Four Food Group Guide. *Journal of Nutrition Education*, 19(4), 169–176. [http://dx.doi.org/10.1016/S0022-3182\(87\)80184-X](http://dx.doi.org/10.1016/S0022-3182(87)80184-X).
- Insee. (2015). *Consommation finale effective par produit*. Institut National de la Statistique et des Études Économiques. http://www.insee.fr/fr/themes/theme.asp?theme=16&sous_theme=2.3. Consulted 30.06.16.
- James, F. (1975). Yogurt: Its life and culture. *Expedition*, 18(1), 32–38.
- Jones, G. (2005). *Renewing unilever: Transformation and tradition*. Oxford: Oxford University Press.
- Julier, A. (2012). Family and domesticity. In A. Bentley (Ed.), *A cultural history of food in the modern age* (pp. 145–163). London: Berg.
- Knijf, T. C. M., & Verheijen, C. M. L. H. (1982). *Moederschap in een vrouwenblad: van opoffering naar zelf-ontplooiing*. Nijmegen: Nijmegen University Press.
- Kotler, P. J., & Armstrong, G. (2013). *Principles of marketing* (14th ed.). Upper Saddle River, NJ: Pearson.
- Lalau, H. (1991). Dossier yaourt. *Distribution d'Aujourd'hui*, 24, 9–23.
- Levenstein, H. A. (1993). *Paradox of plenty: A social history of eating in modern America*. New York, NY/Oxford: Oxford University Press.
- Livingstone, S. (1998). Audience research at the crossroads: The 'implied audience' in media and cultural theory. *European Journal of Cultural Studies*, 1(2), 193–217. <http://dx.doi.org/10.1177/136754949800100203>.
- Luckow, T., Moskowitz, H. R., Beckley, J., Hirsch, J., & Genchi, S. (2005). The four segments of yogurt consumers: Preferences and mind-sets. *Journal of Food Products Marketing*, 11(1), 1–22. <http://dx.doi.org/10.1300/J038v11n01>.
- Matheson, D. (2005). *Media discourses: Analysing media texts*. Maidenhead: Open University Press.
- Mawad, F., Trias, M., Giménez, A., Maiche, A., & Ares, G. (2015). Influence of cognitive style on information processing and selection of yogurt labels: Insights from an eye-tracking study. *Food Research International*, 74, 1–9. <http://dx.doi.org/10.1016/j.foodres.2015.04.023>.
- MEZ-MD. (1980). *Koninklijk besluit van 18 maart 1980 betreffende yoghurt en andere gefermenteerde melk (BS 1980 04 24)*. Brussels: Ministerie van Economische Zaken, Metrologische Dienst.
- Nair, B. M., & Prajapati, J. B. (2003). The history of fermented foods. In E. R. Farnworth (Ed.), *Handbook of fermented functional foods* (pp. 1–25). Boca Raton, FL: CRC Press.
- Nederlandsche Kamer van Koophandel. (1973). *De Belgische voedingsmiddelenmarkt: Studie verricht in opdracht van de Nederlandsche Kamer van Koophandel voor België en Luxemburg*. Brussels.
- Niessen, E., Raymaekers, J., & Segers, Y. (2004). *Vrijwaar U van namaaksel! De Belgische zuivel in de voorbije twee eeuwen*. Leuven: CAG.
- Oldenziel, R., & de la Bruhèze, A. A. (2009). Theorizing the mediation junction for technology and consumption. In R. Oldenziel, & A. A. de la Bruhèze (Eds.), *Manufacturing technology, manufacturing consumers: The making of Dutch consumer society*. Amsterdam: Aksant.
- Pohjanheimo, T., & Sandell, M. (2009). Explaining the liking for drinking yoghurt: The role of sensory quality, food choice motives, health concern and product information. *International Dairy Journal*, 19, 459–466. <http://dx.doi.org/10.1016/j.idairyj.2009.03.004>.
- Possa, G., de Castro, M. A., Marchioni, D. M. L., Fisberg, R. M., & Fisberg, M. (2015). Probability and amounts of yogurt intake are differently affected by socio-demographic, economic, and lifestyle factors in adults and the elderly—results from a population-based study. *Nutrition Research*, 35(8), 700–706. <http://dx.doi.org/10.1016/j.nutres.2015.05.020>.
- Scholliers, P. (1993). *Arm en rijk aan tafel. Tweehonderd jaar eetcultuur in België*. Brussels: BRTN.
- Scholliers, P. (2009). *Food culture in Belgium*. Westport, CT: Greenwood Press.
- Scrinis, G. (2013). *Nutritionism: The science and politics of dietary advice*. New York, NY: Columbia University Press.
- Sluik, D., & Feskens, E. (2013). *Zuivelconsumptie in Nederland: Resultaten uit de voedselconsumptiepeiling 2007-2010*. Wageningen: Wageningen University Press.
- Spiekermann, U. (2009). Twentieth-century product innovations in the German food industry. *Business History Review*, 83(2), 291–315. <http://dx.doi.org/10.1017/S0007680500000532>.
- Stoilova, E. (2014). *Producing Bulgarian yoghurt: Manufacturing and exporting authenticity*. Amsterdam: Amsterdam University Press.
- Tamime, A. Y., & Robinson, R. K. (1985). *Yoghurt: Science and technology*. Oxford: Pergamon.
- Tamime, A. Y., & Robinson, R. K. (2007). *Tamime and Robinson's yogurt: Science and technology*. Cambridge: Woodhead Publishing.
- TNS. (2007). *U&A dairy products en Belgique*.
- Trubek, A. (2008). *The taste of place: A cultural journey into terroir*. Berkeley/Los Angeles, CA: University of California Press.
- USDA. (2014). *Dairy products: Per capita consumption, United States, 1975-2013*. United States Department of Agriculture. http://www.ers.usda.gov/datafiles/Dairy_Data/pcconsp_1_.xlsx. Consulted 30.06.16.
- USDA. (2015). *National nutrient database for standard reference*. <http://ndb.nal.usda.gov/ndb/search>. Consulted 30.06.16.
- Valli, C., & Traill, W. B. (2005). Culture and food: A model of yoghurt consumption in the EU. *Food Quality and Preference*, 16, 291–304. <http://dx.doi.org/10.1016/j.foodqual.2004.05.006>.
- Van Heghe, G. (1990). *Trends in de consumptie van zuivelproducten: Opportuniteiten en bedreigingen*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Vecchio, R., van Loo, E. J., & Annunziata, A. (2016). Consumers' willingness to pay for conventional, organic and functional yogurt: Evidence from experimental auctions. *International Journal of Consumer Studies*, 40(3), 368–378. <http://dx.doi.org/10.1111/ijcs.12264>.
- Veillard, P. (2011). *Les consommateurs et les yaourts*. Brussels: CRIOC.
- Verriet, J. (2013). Ready meals and cultural values in the Netherlands, 1950-1970. *Food & History*, 11(1), 123–153. <http://dx.doi.org/10.1484/J.FOOD.1.103558>.
- Verriet, J. (2015). Convenience and the hierarchy of meal preparation. Cooking and domestic education in the Netherlands, 1910–1930. *Appetite*, 94(11), 7–12. <http://dx.doi.org/10.1016/j.appet.2015.02.023>.
- Vertessen, J., Van Heghe, G., & Boddez, G. R. (1964). *Algemene studie betreffende de afzet van land- en tuinbouwproducten*. Brussels: Landbouw-Economisch Instituut/Institut Economique Agricole.
- Wegnez, I. (1995). Dossier yaourt. *Distribution d'Aujourd'hui*, 28, 23–40.