



Deposited via The University of Sheffield.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/177422/>

Version: Published Version

Article:

O'Hagan, L.A. (2021) Blinded by science? Constructing truth and authority in early 20th-century Virol advertisements. *History of Retailing and Consumption*, 7 (2). pp. 162-192. ISSN: 2373-518X

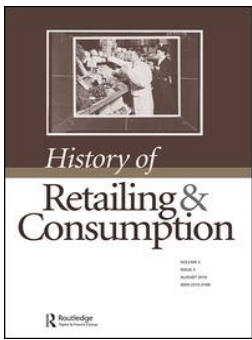
<https://doi.org/10.1080/2373518X.2021.1983343>

Reuse

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) licence. This licence only allows you to download this work and share it with others as long as you credit the authors, but you can't change the article in any way or use it commercially. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



Blinded by science? Constructing truth and authority in early twentieth-century Virol advertisements

Lauren Alex O'Hagan

To cite this article: Lauren Alex O'Hagan (2021): Blinded by science? Constructing truth and authority in early twentieth-century Virol advertisements, *History of Retailing and Consumption*, DOI: [10.1080/2373518X.2021.1983343](https://doi.org/10.1080/2373518X.2021.1983343)

To link to this article: <https://doi.org/10.1080/2373518X.2021.1983343>



© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 07 Oct 2021.



[Submit your article to this journal](#)



[View related articles](#)



[View Crossmark data](#)

Blinded by science? Constructing truth and authority in early twentieth-century Virol advertisements

Lauren Alex O'Hagan

School of Humanities, Education and Social Sciences, Department of Media and Communication Studies, Örebro University, Örebro, Sweden

ABSTRACT

This paper conducts a case study of the marketing of Virol – a malt extract preparation that was popular in early twentieth-century Britain – using advertisements from British newspapers. Using multimodal critical discourse analysis, it explores how marketers drew upon linguistic/semiotic resources to embed Virol in discourses of scientific knowledge and how these discourses were made to appear true. Through targeted marketing campaigns, Virol established consumer bases framed around three health concerns: malnutrition, constipation and anxiety. Using testimonies, buzzwords, photographs and infographics, Virol created an illusion of scientific rationality, yet the studies or authority figures behind their findings were never explicitly specified, leaving consumers to make assumptions about the product's benefits using their own limited understandings. As women were the primary household shoppers, 'scientific motherhood' (and 'wifeness') was also drawn upon, producing a dichotomy that framed women as responsible for their families' health, yet incapable of this responsibility without expert intervention.

ARTICLE HISTORY

Received 24 February 2021

Accepted 24 August 2021

KEYWORDS

history of science; marketing; modality; multimodal critical discourse analysis; advertisements; Great Britain; health

Introduction

Contemporary marketing is often described as fickle, fast-moving and continuously splintering in response to technological advances, changing customer needs and a desire to increase competitiveness and financial gain.¹ However, these characteristics and motivations are not a product of the modern age; in fact, they can be traced back to the late nineteenth century – a period when scientific discoveries and inventions were occurring at a rapid rate and coinciding with the birth of modern advertising and mass consumerism.² Canny food manufacturers saw opportunities in growing public interest in science, instantly producing advertisements that framed their products as health-restoring elixirs and constantly remarketing them in relation to rapidly changing scientific understanding so as to remain popular and relevant to consumers.³ The use of

CONTACT Lauren Alex O'Hagan  lauren.ohagan@oru.se  School of Humanities, Education and Social Sciences, Department of Media and Communication Studies, Örebro University, Fakultetsgatan 1, Örebro, 702 81, Sweden

© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

science in marketing was, thus, a key way to construct authority and credibility⁴ and was reflective of a broader change in networks of trust across Victorian society, with people moving away from 'thick' networks of friends and family to 'thin' networks based around institutions and authority figures.⁵

While the historical use of (pseudo)scientific marketing has been well-documented for such products as patent medicines, vitamins and soap,⁶ to date, scant attention has been paid to its application when it comes to foods and how they shape discourse, beliefs and behaviours around health and healthy lifestyles.⁷ Furthermore, of the limited studies that exist, most have concerned a US context,⁸ thereby providing a one-dimensional understanding of the link between science, food marketing and healthy eating in the late nineteenth and early twentieth centuries. Despite the wealth of evidence left by advertisements in British newspapers on how food products were positioned as 'scientific' and therefore 'healthy', this data remains widely overlooked by scholars and certain brands that were once bestsellers have been neglected in academic research.

With this in mind, the current paper conducts the first case study of the marketing practices of one brand – Virol, a malt extract preparation that was popular in early twentieth-century Britain – using a dataset of 150 advertisements collected from the British Newspaper Archive. It is particularly concerned with the way that marketers draw upon linguistic and semiotic resources to embed Virol in discourses of scientific knowledge and development, and how these discourses are made to appear true and credible.⁹ These claims are made not just through language, but also through images, infographics, typography and colour, which help illustrate Virol's functions and efficacy. Therefore, the analysis draws on the tools of Multimodal Critical Discourse Analysis (MCDA) – a method to reveal how certain ideas and values are represented and conveyed through semiotic choices, the extent to which they are valid and how marketers appear aligned to the promises they put forward.¹⁰

By embedding Virol's marketing strategies within the social transformations taking place at that time and developments in medical and scientific knowledge, I demonstrate how the brand sought to distance itself from patent medicine advertising in order to appear more professional and decrease consumer scepticism. Yet, in doing so, it adhered to many of the same tried and tested formats, using such selling tactics as dubious testimonials, uncited or unsubstantiated references to scientific studies, scientific charts and images of the human body.¹¹ In particular, I note how Virol segmented its product lines according to three major health concerns of the period – malnutrition, constipation and anxiety – picking and choosing scientific information that would be relevant to its main consumer target: women. As public understanding of science was malleable and influenced strongly by the popular press at this time, I argue that the extensive marketing of Virol in different ways across local and national newspapers was influential in constructing discourses of truth around health management and moved advertisements beyond merely informational tools into sensational and psychological apparatus.¹²

The origins of selling with science

The Great Exhibition of 1851 is often described as the event that paved the way for scientific discourse in British advertising because it promoted the latest technological

advancements, inaugurated a new way of seeing things and fashioned a mythology of consumerism.¹³ Moreover, it showed producers the importance of knowing customers' desires to compete successfully and survive in an ever more competitive market. This transformed the advertising industry and set a precedent for the consumer economy in which we now live.¹⁴

Today, the use of science in food and drink marketing is so commonplace that we take it as a given,¹⁵ but this was not the case in the nineteenth century. The introduction of scientific discourse into advertising was innovative and novel, creating an artificial demand for products on the basis that trusting consumers thought that they would improve their lives.¹⁶ Following the Great Exhibition, advertisements for old products started to emphasise their improved scientific processes, while advertisements for new products began to foreground their scientific origins.¹⁷ However, at the same time, these products were surrounded with an air of mystique, as their complexities were not readily understood by consumers, thus turning them into both mirrors and instruments of social ideals.¹⁸ Increased attention to marketing was facilitated by the abolishment of newspaper stamp duty in 1855 and changes in production, which moved advertisements from textually oriented, uniformed layouts to heavily illustrated and multimodal in nature.¹⁹ However, it was not until the 1880s that scientific discourse in advertising was widely adopted in Britain, reaching its peak in the interwar period.²⁰

The reasons for this widespread growth from 1880 onwards are manifold. One major cause was the passing of the 1875 Sale of Food and Drugs Act. Prior to this Act, Britain had a huge problem with food adulteration, whereby inferior materials were substituted for genuine articles to cope with consumer demand.²¹ Through the Act, a code of practice in commercial relationships was developed, with food companies now trading on their reputation for honesty, integrity and quality.²² Branded foods became an essential part of this code, offering assurance of consistent high standards from a credible source. Recognising their privileged position as knowledge shapers, food brands began to make heavy use of science in their marketing, using narratives of health and wellbeing to differentiate their products from competitors and build consumer trust.²³

Another important contributory factor was the social connotations of health and wellbeing. As nutrition grew as a science, food manufacturers became strongly aware of the prevalence of such diseases as tuberculosis, typhoid, scarlet fever, smallpox and dysentery across all classes and that the key to their prevention was proper diet and good hygiene. However, more importantly, they became aware of the strong link in the public consciousness between health and morality and used this to their advantage.²⁴ For the average Victorian family, nutrition was embedded in nationalist rhetoric: it was one's moral duty to be a 'strong' citizen and to neglect health through poor diet was deemed selfish and inexcusable. Food companies latched onto these beliefs, quickly identifying that employing scientific discourse into their advertisements would imply that they were concerned about the welfare of British people, while at the same time providing them with new profits.²⁵

Food marketers also capitalised on the effects of compulsory schooling and decreased book production costs, which had resulted in rising literacy rates and fostered a new reading public in Britain. This public was alerted to the latest medical and scientific advances in the popular press, even if they did not understand them, and viewed doctors and scientists as important authority figures.²⁶ Thus, popular consciousness gained a new idea that medical research could provide widespread benefits for their

health and wellbeing.²⁷ In response to the public's new fascination with scientific innovation, marketers quickly employed infographics, facts and quotes from doctors and scientists into their advertisements, shrewdly perceiving that most consumers would assign the expert status on the grounds that he knew something that they did not know and, therefore, not question the veracity of the information presented.²⁸ As Church²⁹ notes, this tactic created an inertia in consumer behaviour, desensitising people to considerations of price and quality and turning products into lifestyle aspirations. For consumers, as long as the scientific statements were coming from reputable brands and figures, there was no need to doubt them.

As the 'chancelloresses of the family exchequer'³⁰ and those responsible for child-rearing and family health, women were the main target of these advertisements. Such was their importance that a 1913 report noted that 90% of advertisers chose to leave men out of their advertisements when designing them.³¹ Whether lowbrow tabloids or highbrow broadsheets, advertisements were squarely aimed at women, using images of housewives, 'slice-of-life' stories, direct address and fear appeals to underscore the importance of family safety and survival.³² Furthermore, as many women were now also in paid work, advertisements regularly framed products as labour-saving fix-all that would enable women to maintain a happy and healthy family despite the time pressures of modernity.³³ As we will see in this paper, Virol replicated the strategies of other contemporaneous brands, preying particularly on consumer fears about being bad citizens who risked disease or even death if they did not place faith in the science behind these products. Loeb³⁴ describes this approach as a 'consumerist natural selection' in its overt instructions on how women in particular should behave to ensure the future health of the British population.

The marketing of Virol

Virol was initially produced by the Liquor Carnis company in 1894, but grew in popularity when it was purchased in 1899 by Bovril. It came about as an experimental product, created so as to make use of the by-products of the brewing industry, but was quickly recommended in medical journals as an alternative to cod liver oil. Virol was described as a 'highly concentrated complete food,' which consisted of malt extract, beef marrow, egg, lemon syrup and soluble phosphates.³⁵ It was sold in ceramic jars and, according to *The Hospital*,³⁶ tasted like toffee, looked like honey and was taken in teaspoonfuls, which could be spread on bread. Its high palatability, coupled with its well-balanced and easily assimilable ingredients, made it particularly suitable for children and invalids.³⁷

The chosen product name had important connotations, many of which were gendered and reflective of the social context in which it emerged. First, Virol gave an evident nod to 'virility', which was seen as a core aspect of masculinity and was measured by physical strength, energy and sex drive.³⁸ The virility of both self and nation/race was a major concern at this time in Britain after one-third of recruits enlisted to fight in the Second Boer War were deemed unfit for military service due to their poor health.³⁹ Virol also made reference to science and modernity, 'vriol' being the latent source of energy mentioned in Edward Bulwer-Lytton's novel *The Coming Race* that gives a person extraordinary strength and creates a superior master race (this was also the inspiration for Bovril). The importance of science and modernity for Virol's image can be seen in a promotional

article for *The Illustrated Sporting and Dramatic News* entitled ‘Here Health Is Made’, which describes the Virol factory as having ‘electricity’, ‘up-to-date lines,’ ‘spotless cleanliness’ and ‘strictly enforced laws of hygiene’ and is accompanied by photographs of workers in white lab coats amongst metallic vats (Figure 1).

Virol’s marketing practices fit with the emerging pattern of creating ‘science-based’ foods that were reflective of progress and offered a solution to a particular medical problem.⁴⁰ However, while it had some nutritional benefits, doctors warned that the product should be used as an *auxiliary* rather than a *substitute* for ordinary food and that consumers should exercise caution in interpreting its claims about high protein and vitamin content.⁴¹ Porter⁴² argues that the commercialisation of science by food manufacturers led to a growth of hypochondria amongst consumers, who were susceptible to the new vocabulary drawn from the laboratory and believed that these products were essential for staving off illness. This susceptibility is apparent in the rapid consumer demand for Virol, leading to the creation of a larger factory in Perivale, Middlesex in 1920. Virol was exhibited at the British Industries Fair in 1929 and even employed ‘Virol Ladies’ to dish out spoonfuls to children in schools throughout the 1940s. Over its peak period on the market – 1900 to 1940⁴³ – Virol branded its product in three different ways: as Virol for malnutrition, Virolax for constipation and Virol & Milk for anxiety. What is interesting, however, is that all three products were essentially the same in form and taste; the only thing that distinguished them was the way that scientific discourse was used to create segmented marketing campaigns and increase the brand’s impact and uptake.

‘Don’t let your child die’: preventing malnutrition with Virol

At the turn of the twentieth century, Britain was facing a serious malnutrition problem as a result of disparities across classes in standards of living and diet. A high percentage of

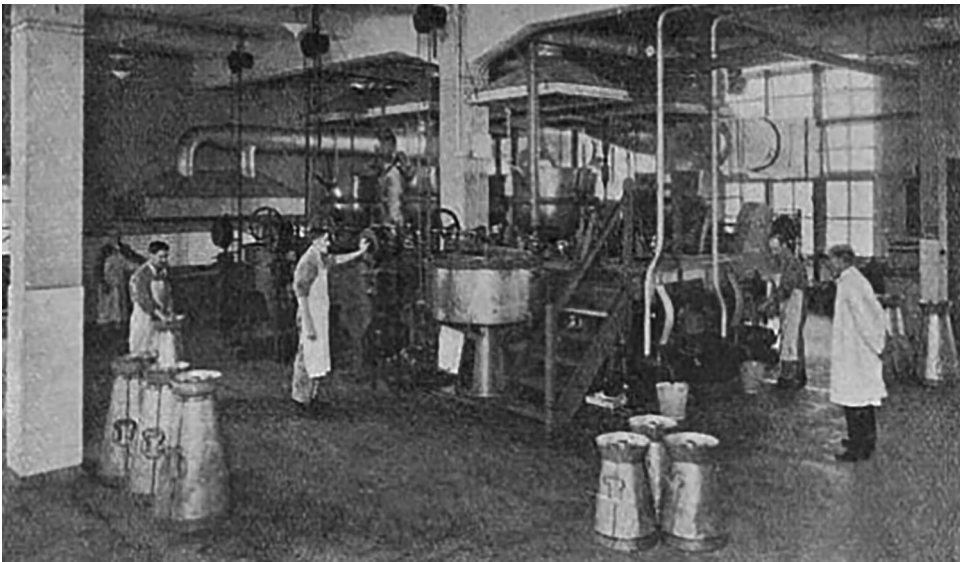


Figure 1. Inside Virol’s factory. *The Illustrated Sporting and Dramatic News*, 27 Feb 1927.

children suffered from rickets and scurvy, resulting in brittle bones and stunted growth, and leading to a weakened immune system, increased vulnerability to infections and, ultimately, death.⁴⁴ An 1899 article in *The Gentlewoman* provided the shocking statistic that 50% of all deaths in England were of children, many of whom were malnourished. Health reformers, social commentators and even physicians blamed mothers for these high rates of child mortality, claiming that poor child health was a result of maternal ignorance.⁴⁵ Women were increasingly told that they needed to forget about their instincts or knowledge passed down from their mothers and listen to expert scientific and medical advice to raise their children healthfully. Virol immediately saw the benefits of using this notion of 'scientific motherhood'⁴⁶ in its advertisements, employing the prestige of science to play upon the emotions of mothers and frame them as incapable of child-rearing without the intervention of experts. This strategy was commonly employed by brands at the time, from Cadbury's and Pear's to Mellin's and Ovaltine, and was seen as an effective way to tap into women's insecurities about 'respectability' and to shame them into purchasing a particular product.⁴⁷

We see this clearly in the bold headlines in Virol advertisements that target mothers: 'Look, mother, look, this concerns your child!'; 'Virol will save your child's life'; 'Your child needs Virol now.' Here, the direct address and strong modal expressions (e.g. 'will,' 'needs') imply urgency and command mothers to act in a particular way to protect their children, in this case by purchasing Virol. Apple⁴⁸ found similar examples in her study of scientific motherhood in US food marketing during the same period: 'Advice to Mothers!'; 'Add science to love and be a perfect mother!' Such headlines imply that not to follow the brand's advice is to be irresponsible and go against the conventional female role of caregiver.

These headlines are often accompanied by testimonials from mothers in the form of letters, telling personal stories about their children and how their malnutrition was overcome by taking Virol (Figure 2). Through these testimonials, Virol cleverly creates the impression that mothers have 'role model authority',⁴⁹ but the voices of the doctors are masked through depersonalised verbs (e.g. 'I was advised to try Virol') and lay terms (e.g. 'he was wasting ... he pulled round ... he's a splendidly sturdy little fellow'), which gives mothers a false sense of control over the dietary requirements of their child. Barker⁵⁰ has traced these types of letters back to late Georgian medical advertising and has argued that they tend to mimic the language and rhetoric of court witness statements and affidavits, which gives them a high level of credibility. In the context of the early twentieth century, these forms of public testimonials also build credibility by creating a sense of community and encouraging mothers to gain confidence in a particular product because of the collective experience around it.⁵¹

Although these testimonials seem convincing, only initials or titles and surnames are used, making it hard to know whether the person existed or was simply invented by Virol to appeal to its target consumer base. Indeed, in the context of patent medicines, such vague references were often fake and relied on consumer trust in a brand to be honest and ethical.⁵² Nonetheless, weight is added to Virol's testimonials by the accompanying images of smiling, healthy-looking babies, often with blonde hair and no clothes to signal their purity⁵³, who are framed in such a way that they can be easily interpreted as the children referred to in the testimonials. Naked children were a common feature of Victorian and Edwardian advertising, used particularly during the 'pure foods' campaign

VIROL



“Virol built up his strength.”

101, Cambridge Road,
Seven Kings, Essex.

Dear Sirs,
My baby seemed to be quite healthy at birth, but being unable to feed him I tried different foods at various times. At first he appeared to be making progress, but after a few months it became evident he was wasting, and I was advised to try Virol. He soon began to put round, and in a short time made considerable weight and was altogether brighter and happier. This satisfactory progress has continued, thanks to Virol, which has built up his strength, making him a splendidly sturdy little fellow. In view of the gratifying results obtained, I do not hesitate to recommend Virol whenever the question arises of the best alternative food for baby.

Yours truly, G. C. COLMAN.

BRITISH MADE, BRITISH OWNED.

In Glass and Stone Jars, 1/1, 1/10 & 3/3. VIROL, LTD., 148-166, Old Street, E.C.

Figure 2. Mother's testimonial. *Illustrated London News*, 29 March 1919.

against adulteration. Advertisements for Fry's, Tetley and Nestlé often featured androgynous children with cherub-like blonde hair, rosy cheeks and full lips, thereby equating food purity with physical and spiritual purity.⁵⁴ Thus, we see how products gain

credibility by positioning themselves as offering a 'return' to a pristine, natural state that is in line with domestic ideals about motherhood and child-rearing.⁵⁵ The children in the Virol advertisements are often depicted looking away from viewers in what Kress and van Leeuwen⁵⁶ call an act of 'offer' because it encourages us to contemplate them and, thus, strengthens the impact of consuming the product. The children also tend to face left, which is associated with portraiture and historically considered to be the more emotionally powerful side of the body.⁵⁷ This angle further frames the testimonials as honest and authentic, therefore making it hard to question what is presented as the truth.

These visual representations of 'truth' are taken even further in another form of Virol advertisement, which shows 'before' and 'after' vignettes. Such vignettes have their origins in patent medicine advertisements, which often depicted the 'before' and 'after' effects of diet pills and hair regrowth treatments, and extended to trade cards in the late nineteenth century.⁵⁸ They were also commonly used as publicity stunts by Dr Barnardo to demonstrate the positive impact of his homes for poor and orphaned children.⁵⁹ Loeb⁶⁰ sees them as promoting a 'quasi-evangelical idea of a life transformed' that was in keeping with middle-class religious beliefs of the time. [Figure 3](#) shows a malnourished child on the left with their head looking down, while on the right is a healthy child with their head raised and smiling. In such compositions, the left side represents 'given' information, while the right side depicts 'new' information to which 'the viewer must pay special attention'.⁶¹ Thus, a certain causality between the two children is implied, suggesting a development over time.⁶²

This causality is accentuated by the accompanying caption, which claims that the two images are of the same child, taken before and after Virol. Although readers are given no sense of how long the child had to take Virol to overcome malnutrition, they have little room to question the images' veracity, particularly as the 'after' child engages them in a visual form of direct address that almost dares them to dispute Virol's benefits. This veracity is further emphasised by the larger image above of a topless teenager leaping through the air in a high-action shot, legs and arms extended and head down. The caption alongside states that it is the same child today showing 'permanent effects' of Virol. We have no way of knowing if it is the same boy or indeed if his name is even real, but the framing is convincing, as is the affective description of Virol as 'the food of life' and the challenge that those who are not convinced by the photos can obtain a full medical report by writing to Virol. Again, Virol cleverly places the children at its centre and casually embeds the medical authority in small print. However, even this medical authority can be misleading: the claim that doctors say 'Virol abounds in the vital foods without which health life and growth cannot exist,' for example, suggests that Virol is a nutrient already present in food rather than a supplement and, thus, grants it greater status.

In other advertisements, just one of the images is included, often for emotive effect: before images are frequently captioned 'baby fail,' suggesting that women have failed at motherhood if they do not buy Virol, while after images often bear the caption 'the Virol smile,' implying that the product will bring an overall sense of wellbeing to the person who consumes it. Similar tactics have been found in other contemporaneous advertisements, such as Allenbury's infant food and Mother Seigel's syrup, which show crying babies and scare women into purchasing the products out of fear of being seen as unfit mothers otherwise (e.g. 'Hurry mother. Don't let your child down!'). In these cases, we see how modality draws upon interpersonal, rather than ideational,

6

Life and Vitality given by VIROL!

Cyril Colston
TO-DAY
showing permanent
effects of Virol.

**Once a Hopeless
Case of Wasting**

These 3 photos show
the remarkable effect
of Virol on C. Colston,
given up by two
doctors at the age of
five. Full medical
report on application
to Virol Ltd.

(Before Virol) Same boy age 5. (After Virol)

Build your child's body for life!

Virol is literally the Food of Life. Case after case proves by photographs and authenticates by doctors' testimony that Virol abounds in the vital foods without which healthy life and growth cannot exist.

Build your child's body for life and strengthen him or her against the dangerous days of winter by giving Virol now.

VIROL

IN JARS, 2S. 3- & 4S. VIROL LTD., HANDEK LANE, EALING, LONDON, W.5.

Figure 3. Before and after. *Belfast Telegraph*, 22 October 1925.

meaning to convey truthfulness, playing upon emotions to shape readers' understanding of truths rather than express absolute truths.⁶³

Another striking aspect of Virol advertisements is the use of infographics, which deliver dense information in a fun, user-friendly way. While infographics are often seen as a product of modern-day advertising, they can be found frequently in advertisements from as early as 1880. Advertisements for the Edwardian protein powders Emprote and Plasmon, as well as for Sunkist fruit juice, for example, frequently use bar charts, pie charts and other forms of data visualisation to show nutritional content.⁶⁴ While infographics create the sense that consumers are being empowered, deeper engagement with their content often reveals that the visual components are vague, misleading and/or pseudoscientific. We see this in the example in [Figure 4](#) of four schoolchildren climbing a ladder, its rungs signalled by three arrows marking 'on ordinary meals only' (bottom), 'while on other supplements' (middle) and 'while on Virol' (top). The arrows imply an upward directional flow associated with vitality and energy,⁶⁵ suggesting that children who take Virol will be stronger and fitter. This point is emphasised by the large-scale photograph of the woman alongside looking up and pointing at the boy at the ladder's top who, in turn, gazes down at her with a smile on his face. A sign stating 'ideal rate of growth' hangs beneath his feet, illustrating that Virol has helped him exceed growth expectations. While the text alongside informs us that the results are based on a 'scientific investigation,' the advertisement does not explain how 'ideal' or 'ordinary' are defined, nor what the 'other supplements' are, which makes it challenging to interpret the information.⁶⁶ The study's main finding that children 'definitely need something extra' is also unclear. Despite these contradictions, readers are likely to rely on their limited knowledge of 'scientific investigations' to make assumptions about Virol's effectiveness.⁶⁷

Similar contradictions are at work in the bar charts used in Virol advertisements. The chart in [Figure 5](#) shows five columns of variable size with the silhouette of a child standing on top. The accompanying text displays different values in ounces (from lowest to highest) to represent average weight increase per week when following an ordinary diet, when consuming cod liver oil, when consuming halibut liver oil and when consuming Virol. The visual and verbal signs imply that Virol outperforms the others and even surpasses the standard average increase per week for children. While the numbers suggest fixed measurements and communicate a logical process of data presentation, we have no knowledge of how these figures were collected, their relative status, whether the supplements are comparable or indeed what age, gender or social background these children come from.⁶⁸ The small print also states that the oils tested were not from advertised proprietary brands, suggesting that Virol has deliberately selected information that will frame it as most effective. The section below, entitled 'What this means to you as a parent,' implies that the information in the bar chart will be synthesised for readers. However, the text remains vague in its assertion that Virol supplies 'all the factors necessary for growth' without stating any, as well as its claim that 'doctors recommend Virol' without naming any particular figures of authority. Nonetheless, through these techniques, Virol is able to provide a general sense of scientific integrity, thus giving readers few opportunities for circumspection and making them more inclined to trust the information they receive. Nelson, Dahs and Ahn⁶⁹ and O'Hagan⁷⁰ also found vague information and contradictory statements in their studies

“Look, Mother, look!”

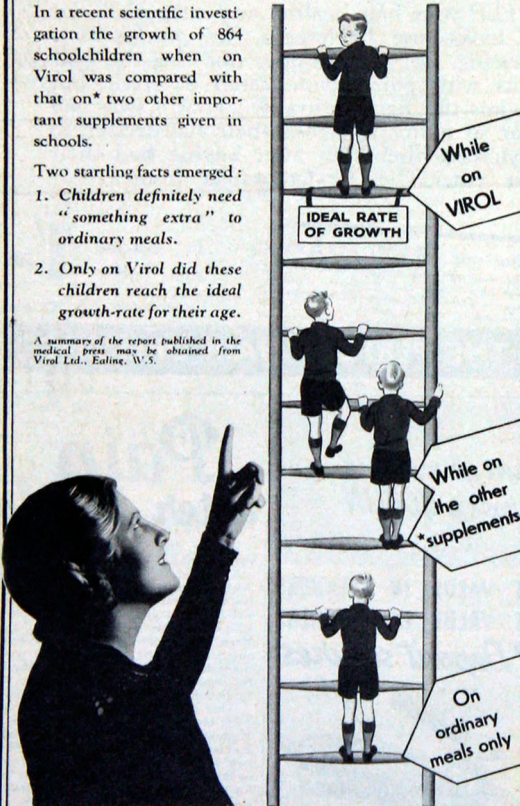
-this concerns
your child

In a recent scientific investigation the growth of 864 schoolchildren when on Virol was compared with that on* two other important supplements given in schools.

Two startling facts emerged :

1. Children definitely need “something extra” to ordinary meals.
2. Only on Virol did these children reach the ideal growth-rate for their age.

A summary of the report published in the medical press may be obtained from Virol Ltd., Ealing, W.5.



Fortify with VIROL – now!

Danger months are drawing near when children particularly need the extra strength and protection of a Virol Constitution. Build up your child and fortify him against the cold, chills and infections of winter. Start giving VIROL now.

VIROL

In Jars, 1/6 & 3/6; Family Jar, 15/-
Virol Ltd., Ealing, London, W.5

Figure 4. Ladder infographic. *Daily Herald*, 6 December 1938.

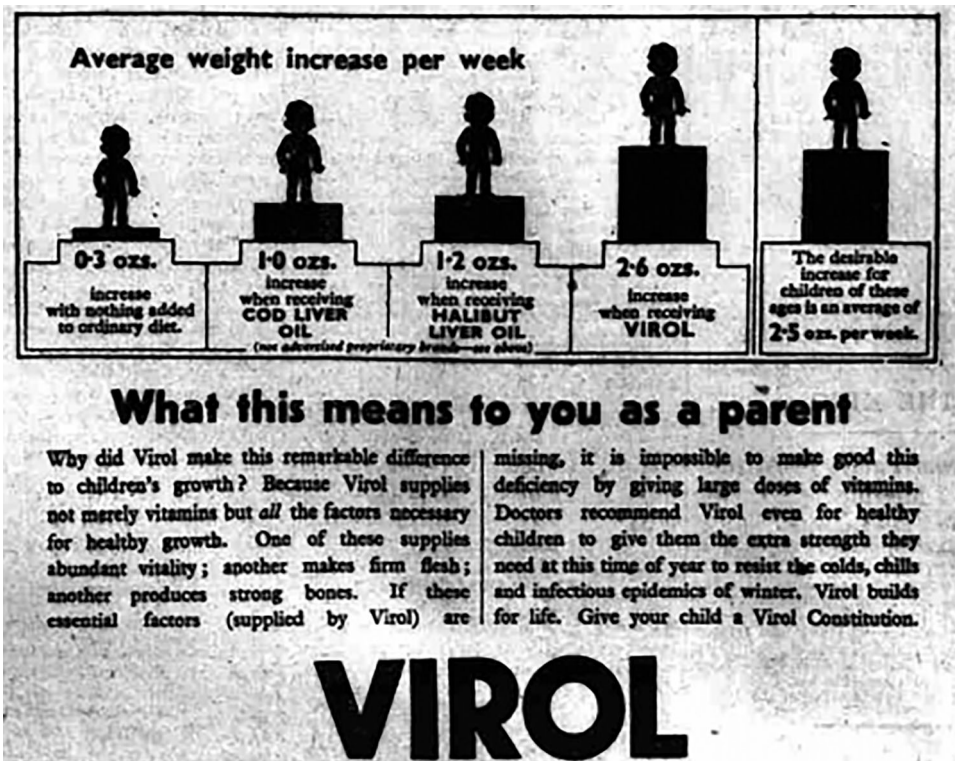


Figure 5. Bar chart. *West Middlesex Gazette*, 29 February 1936.

on infographics in early twentieth-century advertisements; however, as Jones⁷¹ notes, these subtleties were often missed by the average reader who saw such information as an 'openness of exchange' between brand and consumer that portrayed a unified image of progression and science.

'Save your children from harmful drugs': treating constipation with Virolax

Another major health concern in early twentieth-century Britain was constipation, which was seen as the foremost disease of industrialised societies.⁷² Influenced by the development of bacteriology in the 1880s, physicians came up with the theory of 'auto-intoxication,' believing that to be constipated was to poison oneself. There was a widespread belief that 'auto-intoxication by faecal products' was the cause of 90% of disease, including bad breath, headaches, impotence, nervousness and insomnia,⁷³ and thus a constipated person was 'always working towards his own destruction' through 'continual attempts at suicide by intoxication'.⁷⁴ While these theories had some form of medical basis, constipation also had a moral component and was framed as 'the root of all evil' by the Church. One clergyman even told his parishioners that they would be unfaithful to God and the laws of nature if they did not 'expulse food' on a daily basis.⁷⁵ Children were seen most at risk of constipation, but also most able to be 'saved' from impurity if their constipation was treated from a young age.⁷⁶ As such, a stream of aperients were

launched onto the market by canny businessmen who used a relentless barrage of advertising aimed at frightening mothers into giving their children daily doses.⁷⁷ Virolax immediately saw an opportunity in this growing culture of concern around gastric health, adding a dash of paraffin to its product and releasing it under the name Virolax in 1915.

As scientific motherhood was particularly concerned with ensuring normalcy in children,⁷⁸ regular toilet habits provided an ideal topic for Virolax to exploit. However, unlike malnutrition, constipation was not externally visible so Virolax could not rely on provocative images in the same way. Instead, they drew heavily upon medical explanations, yet delivered in simplified and often scare-mongering or sensationalist forms, typical of the popular press. Disguising their advertisements as informative articles meant that textual and paratextual information fused into one, making it likely that readers mistook them for factual content.⁷⁹ Advertisements frequently bear such headlines as ‘Eliminate intestinal poisons’ or ‘Get rid of slow poisons’, which play up the auto-intoxication theory and use imperatives to command mothers to take action (Figure 6). These advertisements bear a strong resemblance to other aperient advertisements of the period (e.g. Natura-lax, Ex-Lax, California Syrup of Figs), which warn mothers to act quickly to ‘remove poisons from stomach, liver and bowels’. However, they also show striking similarities to food advertisements produced during the Spanish Flu pandemic (1918–19), which commanded consumers to ‘attack the germs before they attack you’, thereby putting the onus on individuals to take responsibility for their own wellbeing and that of their loved ones.⁸⁰

The subsequent body of text explains that Virolax removes ‘waste products that poison the body’ and prevents ‘the multiplication of microbes’ that cause anaemia, dyspepsia, headaches and ‘the evils arising from irregularities.’ At the same time, Virolax ‘feeds the tissues’ and ‘strengthens the organs,’ restoring to users ‘a sense of pleasure in life.’ To lay readers, these statements appear scientifically sound, which makes them hard to dispute, even if no studies or experts are cited to support them. Furthermore, their value-laden language is highly emotive and builds a firm case for Virolax’s effectiveness. Such scientific phrases were a common feature of food advertisements from the period⁸¹ and sought to build credibility by tapping into popular beliefs that science was innovative and necessary to modern life.⁸² As it was deemed distasteful to discuss bodily fluids, especially in the presence of women, Virolax frequently uses euphemistic language to describe constipation and laxatives: ‘irregular action’, ‘obstinate case’, ‘opening medicine’, ‘trouble remover’, ‘nature’s assistant’, ‘organs of elimination.’ This euphemistic language is still apparent in contemporary adverts for menstrual products and contraceptives⁸³ and serves to maintain rules of etiquette while signalling that the company understands what its potential consumers are experiencing and why they might need their product.

In many cases, Virolax advertisements explicitly address mothers, reminding them that their children have ‘tender skin’ and ‘delicate internal membranes’ and, thus, ‘risks should not be taken’ with their health or they will suffer ‘permanent damage’ and ‘serious illnesses’ in later life (Figure 7). Again, there is no medical rationale for these bold statements, but they rely on the drastic difference in semantic prosody between the tenderness and delicacy of children and the permanent and serious consequences of not treating constipation to scare mothers into action. This is a strategy

Eliminate Intestinal poisons

When the body fails to get rid of its waste products they become poison in the system, and they carry disease and ill-health to any portion of the body. Your health depends on the daily rebuilding of the bodily tissues by food, and the proper elimination of the waste products.

Virolax is a wonderful nutrient laxative that tones and builds the system, whilst it educates the intestine to get rid of these poisons. Unlike aperients that act by irritating, Virolax strengthens, tones and lubricates the intestine, restoring the natural functions and giving the sense of pleasure in life that comes from real health.

Virolax

(Registered Trade Mark.)

The Nutrient Laxative

VIROL, LTD., Hanger Lane, Ealing, England.

Figure 6. Auto-intoxication. *Ladies' Mirror*, 1 December 1924.

found across advertisements of the period (e.g. Chymol, Formamint, Lifebuoy), all of which play upon the fragility of children as a scaremongering, persuasive tactic.⁸⁴ Virolax even informs mothers that its product tastes of sweetmeat, which is 'so delicious'

VIROLAX Saves your Children from harmful Drugs

Don't let your children fall into the harmful habit of relying upon continuous doses of purgative salts or pills. Such things may do permanent damage to the interior mechanism of the body. You know how tender is the skin of young children. The internal membranes are infinitely more delicate.

Harsh aperients which act by irritation are certainly unfit for children, and the more they are taken the more the system is dependent upon them.

Any irregularity can be quickly put right by a short course of Virolax, the gentle laxative food which lubricates the system and strengthens the organs at the same time.



IN JARS, 1/- and 2/6.

VIROLAX

*The Safe Laxative for Children,
women and delicate Persons.*

VIROLAX LTD., HANOVER LANE, HALLOW, HERTS., ENGLAND, W.5.

Early Habits of Health

Mothers, remember that a little extra care now may save your child from a lifelong tendency to irregularity and all its attendant dangers. Help him to form regular habits of health by giving Virolax whenever nature needs assistance. Don't take risks with drastic aperients. They only make matters worse because of their irritant effect upon the tender internal membranes.

Give VIROLAX for Safety's Sake

There is another reason why Virolax is specially suitable for children. Besides the refined paraffin which lubricates, it contains Virol, the concentrated nutrient. The two in combination gradually strengthen and tone up the internal organs, thus removing the cause of the trouble.

VIROLAX

*The Safe Laxative for Children,
women and delicate persons.*

IN JARS, 1/- and 2/6.

VIROLAX LTD., HANOVER LANE, HALLOW, HERTS., ENGLAND, W.5.

Figure 7. The 'good' mother. *Belfast Newsletter*, 1 February 1926. *Sheffield Independent*, 7 January 1926.

that children will be asking to take it. Early twentieth-century manufacturers commonly produced chocolate- or sugar-coated medicines to make them more palatable for children. Whorton⁸⁵ describes these products as a shameful exploitation of the juvenile market, using sugar to encourage dosing. This active encouragement can also be seen in Virolax's suggestion that 'the first spoonful does you good,' but it is the second half of the jar that 'really shows the benefits,' implying that the product is to be taken every day as a precautionary measure, not just when constipated. Although this goes against general medical advice of the period,⁸⁶ Virolax's bold statements position it as an expert authority, therefore leaving little room for mothers to question the recommendation and risk jeopardising their child's health.⁸⁷

Despite Virolax clearly encouraging daily doses for children, some of its advertisements criticise other aperients and even ask mothers 'why become a slave to the aperient habit?' Virolax deflects this contradiction by cleverly describing itself as a 'laxative food,' not a medicine, and coining the slogan 'the nutrient laxative,' suggesting to mothers that it is perfectly safe to give daily doses to their children because it is full of essential nutrients. Studies on radium-based products from the same period⁸⁸ show similar strategies to deflect the potential harm of radium, with manufacturers emphasising radium as 'nature's nutrient' and informing consumers that products contain 'just the right amount' to be safe. Depicting Virolax as a nutrient not only removes it from the realm of elite science and makes it more accessible to consumers, but it also taps into growing public interest around vitamins, which had only been discovered several years before in 1912.⁸⁹ This is furthered by the suggestions that Virolax is 'the laxative that strengthens' and 'feeds while relieves.' As Vincent⁹⁰ notes, these types of phrases work because they allow interpretative flexibility, yet are recognisable enough to enable

consumers to adapt them to their own purposes. Here, they are essential in generating consumer interest in Virolax as a natural and health-restoring cure without fully understanding its properties or benefits. Other advertisements inform mothers that they should 'never be without Virolax in a house where there are children.' Similar straplines can be found in advertisements for Lux ('I can't keep house without it'), Bovril ('Don't go without Bovril within') and Ledingham ('Never be without it'). Not only do these statements frame women as bad mothers if they do not purchase a certain product, but they also domesticate said product, moving it into the 'sanctum sanctorum' of consumers and, thereby, turning it into something unthreatening that should become part of one's everyday routine.⁹¹

In some cases, Virolax advertisements include testimonials from mothers. While these testimonials resemble those of Virol, they connote an additional level of reliability because they include the woman's full name and address (Figure 8) – a practice that dates back to late eighteenth-century medical advertising.⁹² An investigation of census records and street directories indicate that the individuals behind the Virolax testimonials did not actually exist. However, unknowing readers are likely to assign them 'role model' status because they stand in for the typical everyday contacts who would have provided word-of-mouth reputations when towns were smaller and populations were less diverse.⁹³ The testimonials, thus, provide reassurance that Virolax works and legitimise its use for those unconvinced of its benefits.⁹⁴

In other cases, advertisements make explicit references to doctors, giving the impression that the product has been medically approved. However, these references are deliberately vague, making it challenging to disprove (or indeed prove) them: 'The doctor is the best friend of Virolax'; 'the doctor knows that ...'; 'the doctor informs that ...' Bartrip⁹⁵ and Loeb⁹⁶ have explored the use of doctor testimonials in patent medicine advertisements and have found that many were, in fact 'figments of the advertising imagination' extorted or taken out of context. The *British Medical Journal* even warned of this practice in a 1912 article,⁹⁷ advising consumers to be aware of endorsements by doctors whose names were not in the Medical Register, as well as 'vague titles' and 'misapplied quotes'. In the context of Virolax, an exploration of British medical journals of the period (*British Medical Journal*, *The Lancet*, *The Hospital*) shows no such references to the product; in fact, warnings are frequently given about laxatives and more natural methods including rhubarb and bicarbonate of soda are often suggested instead.⁹⁸ However, most consumers are likely to have willingly accepted Virolax's testimonials on the basis of perceived expertise without questioning their veracity or checking the person's credentials.

While the majority of these advertisements are heavily text-based, there is one image that regularly reoccurs: children taking a spoonful of Virolax (Figure 9). Similar images can be found across contemporaneous advertisements for cod liver oil (e.g. Mellin's), malt extracts (e.g. Chymol) and (e.g. Quaker Oats). In these cases, the children are depicted smiling and looking directly at viewers, thereby encouraging parents to purchase the product for their own child.⁹⁹ Furthermore, the fact that the children are holding a heaped spoon to their mouths implies their willingness to consume Virolax because it is extremely appetising. This 'fetishisation' of the laxative, further emphasised by the caption 'Children Love Virolax,' creates an unnecessary demand for the product

A Mother—On Children's Laxatives

Read what Mrs. Maddock says:—

2, Glentworth Road,
Clifton, Bristol.

Dear Sirs,

"After using *Virolax* in regular quantities I found baby only needed it occasionally. I consider he is now free from what was a most troublesome state, and one which really caused me great anxiety. I cannot speak too highly of the effect it has had on baby. I have mentioned it to several friends with young babies who were troubled in the same way, and I am quite sure they will be pleased with it.

"It really is a wonderful preparation, and so simple to administer because it is so palatable. My baby quite enjoyed it, though he utterly refused to swallow the ordinary refined paraffin when it was ordered by the doctor." (Signed) ISABEL G. MADDOCK.

Virolax feeds while it relieves. Children like it.



IN JARS. 1/- and 2/6.

VIROLAX

*The Safe Laxative for Children,
women and delicate Persons.*

VIROL. LTD., HAGGERS LANE, HALLING, LONDON, W.3

Figure 8. Mother's testimonial. *Birmingham Daily Gazette*, 18 February 1926.

rather than an actual medical need, yet this is softened by the headline that it is 'safe' for children and the strong modal assertion that it 'cannot irritate.' Studies on radium-based products¹⁰⁰ have also noted identical strategies, whereby brands emphasise that 'no modern person can do without radium' and that it is 'carefully controlled' and therefore 'guaranteed to be harmless'. As we have seen in earlier Virol advertisements, the image is supported by a testimonial in italics from 'Lieut. R.N.R' about the effects of Virolax on his young daughter. Viewing the text alongside the photograph immediately implies that the girl in the image is his daughter, although we have no means of knowing whether this is true or not. Again, authority is granted by the man's status as a military officer,¹⁰¹ yet the use of initials makes it impossible to trace his actual identity.

*Children
Love Virolax*



The Safe Laxative for Children

VIROLAX lubricates—it cannot irritate. That is why it is so specially suitable for children. Virolax is a pleasant combination of refined paraffin with Virol, the famous strengthening food. While the paraffin assists the normal processes of Nature, the Virol tones up and builds up the tissues, improves the blood and benefits the whole system. It actually *strengthens* the organs and thus makes them able to act for themselves.

Don't take risks with your children's health by administering pills or "draughts." Virolax will gently but surely remove any tendency to irregularity without any habit-forming or "lowering" effects.

"I must write and tell you of the immense good Virolax has been to my small daughter, now aged three years and four months.

"She has had it twice quite a baby, and I am thankful to say that we have never had a moment's anxiety with regard to her."

*Yours faithfully,
.....Lieut. R.N.R.*



VIROLAX

The Nutrient Laxative

IN JARS, 1/- and 2/8.

VIROL, LTD., HANGER LANE, BADING, LONDON, W.1.

Figure 9. Child consuming Virolax. *Belfast Telegraph*, 22 January 1926.

'You cannot afford a breakdown!': relieving anxiety with Virol & Milk

Although anxiety had always existed, it only started to be understood as a condition in the mid-nineteenth century, where it was described as a 'disorder of modernity caused by the fast pace of urban life'.¹⁰² Nervous disorders interlaced with Victorian assumptions about normalcy and deviance, civilisation and barbarism, order and chaos, masculinity and femininity.¹⁰³ For this reason, physicians developed a clear dichotomy in their understanding of anxiety, seeing it as a 'prestige disease'¹⁰⁴ that brought out physical symptoms (e.g. fatigue, aches and pains, headaches) in men due to their busy working lives and mental symptoms (e.g. insomnia, depression, irritability, excessive emotions) in women who had weaker constitutions.¹⁰⁵ Physicians frequently repeated the importance of correct diet as a cure for anxiety, recommending plain foods such as oatmeal and cream, stale bread and butter, milk, potatoes and beef steak, and soft-cooked eggs to ease the stomach upset associated with emotional strain.¹⁰⁶ Entrepreneurs quickly recognised the potential of a new market, tapping into consumer health concerns with the creation of 'nerve food'.¹⁰⁷ 'Nerve food' was essentially just a product made of powdered milk protein diluted with water, yet through clever marketing campaigns, consumers were lured into believing that it would cure their anxiety. Virol quickly stepped into this growing market, launching Virol & Milk in 1924 as a safeguard against nervous breakdown.

As anxiety was considered to affect adults rather than children, Virol & Milk advertisements were squarely directed at wives rather than mothers, encouraging them to keep well for the sake of their families and give their 'tired husbands' the product to ensure that they are able to enjoy 'their pleasant evenings' with them. Furthermore, as mental health was poorly understood at the time and a relatively taboo topic, Virol & Milk advertisements relied far more on striking, metaphorical visuals than scientifically rational discourse (as in the case of Virol and Virolax) to promote the benefits of the product. Similar strategies can be found across advertisements for all nerve foods in the period (e.g. Wincarnis, Sanatogen, Sanaphos, Phosferine).¹⁰⁸ Anxiety is regularly depicted as a large boulder being pushed up a hill, as a black cloud of negativity or a monster ambushing an unsuspecting person – all images that are still commonly used today in graphic illness narratives.¹⁰⁹ Accompanying captions command readers to respond in a particular way – 'Don't give in!'; 'Fight the dark hours!'; 'Lift the cloud!' – suggesting that Virol & Milk will remove these feelings of anxiety by 'rebuilding nerve cells and tissue.' However, the most frequent depictions of anxiety are as the Grim Reaper or the Four Horsemen of the Apocalypse.

A case in point is [Figure 10](#), which shows a businessman in a suit mounted on a white horse. His furrowed brow, wrinkled cheeks and hunched posture indicate that he is clearly distressed.¹¹⁰ Behind him sits a hooded figure cloaked in black, his skeletal hand raised and ready to grip the unsuspecting man's shoulder. Viewed alongside the white horse, we can interpret him as the First Horseman in the Bible, associated with war and disease. Here, the implication is clear: nerves creep up on you unexpectedly and can make you ill or even kill you if left untreated. The message is further emphasised by the striking black and white colour contrast, which plays upon cultural connotations of good versus evil,¹¹¹ as well as the bold heading 'Nerves' written in a quivering font that connotes anxiety and tension.¹¹² There is also a quote in Latin from Horace, written

NERVES



*"Post equitem
sedet atra cura."
—Horace*

"Behind the Horseman sits Black Care"

That haunted feeling—that "something on your mind"—a vague sense of oppression—haven't you felt it yourself? It's nerves—just disordered nerves, and probably the true cause is *starved* nerves.

Once the nervous system is upset your digestion suffers as well, so that matters go from bad to worse. Exhausted nerve cells cry out for their special form of nutriment, and they cannot get it from ordinary diet, because the digestive system is thrown out of gear as well.

In such a state of affairs Virol-and-Milk

is invaluable. Without placing any burden upon the digestion Virol supplies just those revitalising foods and vitamins that are needed to rebuild the nerve cells and tissues.

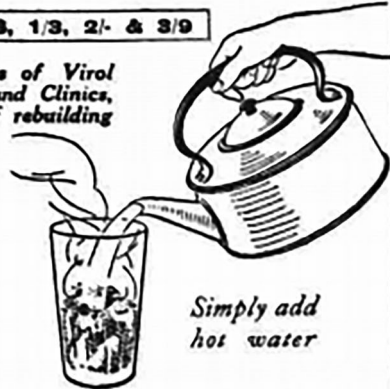
The Virol is blended with pure Devonshire Milk and dried by the scientific Ambrosia Process, which not only sterilises the milk, but preserves the vitamins.

Virol-and-Milk will help you to shake off the spectre of "Nerves." It will restore to you the blessings of a clear untroubled mind by day and calm restful slumber at night.

NEW REDUCED PRICES, 1/3, 2/- & 3/9

Forty Million prescribed portions of Virol were given last year in Hospitals and Clinics, because of its remarkable power of rebuilding wasted nerves and tissues.

VIROL AND MILK



*Simply add
hot water*

IN GOLDEN POWDER—NO EXTRA COST FOR MILK.

VIROL LTD., HANGER LANE, BADING, W.S.

Figure 10. The first Horseman. *Edinburgh Evening News*, 11 November 1924.

alongside and translated in large print below as ‘Behind the Horseman sits Black Care,’ further conjuring up an allegorical description of worry. The text also associates anxiety with the supernatural rather than medical realm, describing it as a ‘haunted feeling’ and encouraging readers to ‘shake off the spectre of nerves’ by taking Virol & Milk. Any attempt at medical explanations are heavily pseudoscientific and appeal to consumer emotions, personifying nerves as ‘starved,’ ‘exhausted,’ ‘thrown out of gear’ and ‘crying out’ for a ‘special form of nutriment.’ This metaphorical, emotive and pseudoscientific language is a common feature of both nerve food and radium-based food advertisements,¹¹³ used to strategically manipulate consumers’ feelings and lead them to act by purchasing the product. While the Virol & Milk advertisement ends by informing consumers that ‘Forty million prescribed portions of Virol were given last year in Hospitals and Clinics,’ this information is vague and not grounded in any evidence. Nonetheless, the sheer quantity of portions and their association with medical institutions is likely to build consumer faith in the product. In their studies of patent medicines, Loeb¹¹⁴ and Jones¹¹⁵ found similar claims about the number of doctors who recommended certain products. They argue that these claims were ethically problematic and risked damaging doctors’ reputations because they duped consumers into believing that unorthodox treatments were endorsed by the medical profession.

Other images depict the realities of life for men and women rather than rely on metaphorical imagery. Slice-of-life presentations are common in advertisements from this period,¹¹⁶ used to show potential consumers how well a product fits into the needs of each family member. Virol & Milk advertisements often show men in suits sitting at their desks surrounded by papers with their head in their hands or pacing their offices nervously with their hands interlocked behind their backs (Figure 11). These images fit with the growing belief that work pressure and the hectic pace of modern life had a direct impact on emotional strain and physical health, particularly for men,¹¹⁷ and regularly reoccur across advertisements for nerve food and radium-based food.¹¹⁸ Here, anxiety is described as ‘the curse of modern life’ and men are warned that their ‘viral current of nervous energy is failing’ and not to ‘wait until the tension gets too strong and something snaps’ before they act. This terminology is in keeping with the medical expertise of the time, which saw nerves as wires that suffered electric impulse malfunctions.¹¹⁹ Men are also frequently warned ‘You cannot afford a breakdown!’ placing the onus on them for their mental health and suggesting that it is their own fault if they do not take precautionary measures by consuming Virol & Milk, which ‘has the effect of a holiday.’ Health as a personal responsibility to avoid letting down one’s family and one’s nation is a frequent theme of early twentieth-century food advertisements,¹²⁰ emphasising that a fit body is an ‘obligation of citizenship’ and essential for Britain’s military prowess, economic success and social harmony.¹²¹

In contrast, women are portrayed in typically middle-class homes, seated in armchairs and looking distressed as their children run around, scream and bang drums. Captions state ‘When the children get on your nerves’ or ‘Do people blame you for your nerves?’, while descriptions use value-laden language to emphasise the problems of anxiety: ‘every noise stabs through your head,’ ‘racked with nagging pain,’ ‘it is a despairing condition.’ In the early twentieth century, there was a growing fear that middle-class women suffered from ‘suburban neurosis,’ caused by moving to the suburbs and experiencing social isolation as their husbands worked all day.¹²² Typical sufferers were described as in their late twenties



NERVES

You cannot afford a Breakdown

How can you settle down to the day's work when your brain is throbbing and your nerves are all untuned?

The stress of modern business life has been too much for your nervous system. The vital current of nervous energy is failing. Unless you take steps to rebuild the exhausted nerve cells which are the source of that energy, a breakdown will result.

These major nerve cells, mainly situated beneath the surface of the brain, need the special food elements which Virol-and-Milk presents in such a well-balanced and immediately digestible form.

When the nerves fail digestion often fails too, so that ordinary foods are powerless to reach the starved nerve cells that are causing the trouble.

Drink Virol-and-Milk before retiring each night and again at eleven in the morning. It will gradually bring back your peace of mind by day and the priceless gift of sleep by night.

In Virol-and-Milk, Virol, the remarkable restorative and tissue-building properties of which are well known, is blended with pure fresh Devonshire milk and dried by the scientific Ambrosia Process which not only sterilises the milk but preserves all the Vitamins.

NEW REDUCED PRICES, 1/3, 2/- & 3/6

Forty Million prescribed portions of Virol were given last year in Hospitals and Clinics, because of its remarkable power of rebuilding wasted nerves and tissues.

VIROL AND MILK

IN GOLDEN POWDER—NO EXTRA COST FOR MILK.

VIROL LTD., BANGOR LANE, SALING, W.A.



Simply add hot water



NERVES

When the Children "get on your Nerves"

When every noise starts right through your head, when you are racked with the nagging pain of neuralgia or the weary burden of insomnia, the root cause of the trouble is nervous starvation. Lift yourself out of this despairing condition by a regular course of Virol-and-Milk.

Virol is the nerve restorative which for years has stood the tests of practical experience. It is no untimed experiment in dietetics. Again and again when everything else has failed, Virol has succeeded in rebuilding exhausted nerve tissues and restoring normal health.

Virol-and-Milk is golden powder is a combination of Virol with pure Devonshire milk. It has the unique property of getting right to the root of nervous trouble by supplying the exhausted nerve cells with exactly the balanced nutriment they crave, without burdening the digestion. This is of supreme importance because disordered nerves invariably upset the digestive organs as well.

Virol-and-Milk, which is rich in the essential vitamins, is far more digestible than ordinary milk alone. Don't make it with milk—simply add hot water.

NEW REDUCED PRICES, 1/3, 2/- & 3/6

Forty Million prescribed portions of Virol were given last year in Hospitals and Clinics, because of its remarkable power of rebuilding wasted nerves and tissues.

VIROL AND MILK

IN GOLDEN POWDER—NO EXTRA COST FOR MILK.

VIROL LTD., BANGOR LANE, SALING, W.A.



Simply add hot water

Figure 11. Gendered advertisements. *Nottingham Evening Post*, 29 September 1924. *Yorkshire Evening Post*, 9 December 1924.

to early thirties with bob hairstyles and ‘cleanly dressed but lacking any sense of zest or glamour.’¹²³ Virol & Milk clearly tap into these depictions of women in their advertisements, following a pattern established by the advertisements of other nerve food and radium-based food brands of the period.¹²⁴ Women are informed that ‘when everything else has failed,’ Virol & Milk will get ‘right to the root’ of nervous trouble and supply ‘exactly the balanced nutriment’ that nerves crave. Similar phrases can be found in advertisements for radium-based foods and protein-enhanced foods,¹²⁵ which give the sense that the quantities are scientifically measured. This, therefore, builds credibility that Virol & Milk is a medically approved product, even though it is not.¹²⁶

Through their advertisements, Virol & Milk also promote the belief that 11:00am is the opportune time to take their product. Just as with Horlicks and the invented condition of night starvation, this was based on no scientific evidence, yet it invested the product with a sense of medical authority, suggesting that its consumption at this time would cure anxiety. Similar techniques can be seen in advertisements for Mackintosh’s toffee, which manufacturers claim is an ‘ample meal replacement’ and Plasmon protein food, which supposedly ‘cures the milk danger’ and helps consumers ‘stay cool’ in summer and ‘keep warm’ in winter.¹²⁷ This is clearly shown in Figure 12, where the bold ‘XI’ in the heading is tilted at the angle it would be found on a clockface, visually connoting advice for potential consumers in a user-friendly format. The clock

V a.m.

This is the hour

11 a.m. is the time to take Virol and Milk if you don't wish to feel exhausted when your day's work is done. For Virol and Milk, which combines the well-known nutrient properties of Virol with full-cream Devonshire milk, is the great nerve food which directly nourishes and fortifies the nerve centres. It will renew your vitality and nervous energy and drive away depression.

Drink Virol and Milk when you go to bed and you will sleep well and wake refreshed. This is the way to get the most out of life without "taking too much out of yourself."

Keep a tin in the home and in the office.

**VIROL
AND
MILK**

for Nerve Exhaustion

IN GOLDEN POWDER-TINS 2s. 3d. FAMILY SIZE 6s.

VIROL LIMITED, MANCHESTER, ENGLAND, U.S.

"Simply add Hot Water"

Figure 12. 11am. *Sheffield Independent*, 27 April 1927.

hand pointing at XI also serves as an arrow, highlighting the importance of the message,¹²⁸ which is further accentuated by the declarative 'this is the hour' below. The body of text informs consumers that if they 'don't wish to feel exhausted' when their day's work is done, they must take Virol & Milk at 11:00am. Again, no reason is given for this, but the claim that doing so will 'renew your vitality and nervous energy and drive away depression' is likely enough to encourage anxiety sufferers to try it. The image of hot water being poured from a kettle evokes a sense of familiarity and homeliness, while the rising cloud of steam envelops the text and further draws attention to its message. Furthermore, the description of Virol & Milk as a 'golden powder' gives it an air of mystery, playing upon associations with opulence and luxury to promote it as an exclusive elixir. Many 'new' foods of the early twentieth century were powder based (e.g. Emprote, Plasmon, Chymol) and did not look particularly appetising; therefore, such descriptions were commonplace in advertisements to ascribe them quasi-magical powers and frame them as wonder foods.¹²⁹

Conclusion

In this paper, I have conducted a case study of the marketing of Virol, using a dataset of newspaper advertisements (1900–1940) to explore how linguistic and semiotic resources were used to embed the brand in discourses of scientific knowledge and development, and how these discourses were made to appear true and credible. The analysis has shown that Virol, Virolax and Virol & Milk essentially all contained the same ingredients, yet through targeted marketing campaigns, the brand established distinct consumer bases framed around three major health concerns: malnutrition, constipation and anxiety. Cutting-edge new theories – from auto-intoxication to suburban neurosis – were delivered in palatable formats to consumers through testimonies, buzzwords, direct address, rhetorical questions, emotive language, photographs, infographics, metaphorical images and slice-of-life presentations, as well as the cultural connotations of typography, colour and layout. While these resources created an illusion of scientific rationality, the evidence, studies or authority figures behind their findings were often obscured or never explicitly specified, thus leaving consumers to 'connect the dots' about the products' benefits with their own limited understandings.

Furthermore, as women (the household shoppers) were the key target of these advertisements, these resources also served an ideological purpose, constructing notions of scientific motherhood (or wifedom, in the case of Virol & Milk) that framed women as responsible for keeping their families healthy, yet at the same time, incapable of this responsibility without the intervention of experts. In this way, women were given a false sense of control over their households, as scientific advice filtered into and gradually replaced their traditional advice networks. As it was impossible for homemakers to have command of all the information to buy intelligently, mass advertising, thus, became a key way to educate them on what foods were necessary to maintain a healthy lifestyle, even if this education had ulterior motives and was not strictly accurate. Therefore, through the excitement around scientific advances, Virol was able to create an artificial demand for its products amongst middle-class women when, ironically, it was the working classes who were more likely to suffer from malnutrition and constipation in particular and would have benefitted enormously from them.

In its canny marketing practices, Virol was simply following in the footsteps of other brands that had emerged in the late nineteenth century and capitalised upon the growing public interest in science to frame themselves as innovative and essential for maintaining health. As asserted throughout this paper, Virol's strategies bear strong parallels with the marketing of radium products,¹³⁰ pure foods,¹³¹ nerve foods,¹³² vitamins¹³³ and fruit and vegetables¹³⁴ in the same time period, as well as changing strategies to food marketing in response to the Spanish Flu pandemic.¹³⁵ Virol's practices also bear striking similarities to neoliberalist rhetoric in contemporary marketing and consumer behaviour,¹³⁶ which encourages citizens to take responsibility for their own health to limit the burden they might place upon society.¹³⁷ Like today, Virol was successful in using nutrient claims – although often unsupported or unverified by credible sources – to position its products as necessary for a healthy lifestyle and link them to broader societal concerns around motherhood, civic responsibility and national pride. These findings, thus, indicate the importance of adopting a historical perspective to the study of food marketing to embed seemingly novel strategies in a broader trajectory of patterned practices and use. It also demonstrates the importance of engaging with historical perspectives when developing policies around food advertising and marketing. Reconstructing the roots of seemingly contemporary problems and restricting policies that develop from distorted renderings or misunderstandings of scientific and medical discourse can prevent consumers from being manipulated by the power of semiotics and misled into purchasing products that offer no real additional benefits to their health. Ultimately, it could stop them being blinded by science.

Notes

1. Doyle and Stern, *Marketing Management and Strategy*, 7.
2. Pope, *The Making of Modern Advertising*; Corley, "Competition and the Growth of Advertising in the U.S. and Britain, 1900–1914," 155–167; Laird, *Advertising Progress*; Santos, *Half Lives*.
3. Murdock, "Selling Scientific Authority," 21–42.
4. Barker, "Medical Advertising and Trust in Late-Georgian England," 380.
5. Putnam, *Bowling Alone*; Luhmann, *Trust and Power*.
6. Brown, "The Vendors of Medicines Advertised in Eighteenth-Century Bath Newspapers," 352–369; Apple, *Vitmania*; Hansen, "New Images of a New Medicine," 629–678; Loeb, "Doctors and Patent Medicines in Modern Britain," 404–425; Curth, "The Commercialisation of Medicine in the Popular Press," 48–69; Scott, "Woodbury Soap".
7. For exceptions, see Nelson, Das, and Ahn, "A Prescription for Health"; Eriksson and O'Hagan, "Selling 'Healthy' Radium Products with Science".
8. For example, Lears, "From Salvation to Self-Realization"; Tomes, *Remaking the American Patient*.
9. Kress and van Leeuwen, *Reading Images*.
10. Ledin and Machin, *Doing Visual Analysis*; Ledin and Machin, *Introduction to Multimodal Analysis*.
11. Apple, *Vitmania*; Nelson, Das and Ahn, "A Prescription for Health".
12. Lears, "From Salvation to Self-Realization"; *ibid*.
13. Richards, *Commodity Culture of Victorian Britain*, 39.
14. O'Hagan, "The Dip Pen as a Source of Social Distinction in Victorian Britain," 187–216; O'Hagan, "The Advertising and Marketing of the Edwardian Prize Book," 72–94.
15. Apple, *Perfect Motherhood*, 155.

16. Church, "Advertising Consumer Goods in Nineteenth-Century Britain," 625.
17. Loeb, *Consuming Angels*, 10.
18. *Ibid.*, 6.
19. *Ibid.*, 7.
20. Church, "Advertising Consumer Goods in Nineteenth-Century Britain," 640; Apple, *Perfect Motherhood*, 90.
21. Collins, "Food Adulteration and Food Safety in Britain in the 19th and Early 20th Centuries," 95.
22. O'Hagan, "Pure in Body, Pure in Mind?," 2.
23. Church, "Advertising Consumer Goods in Nineteenth-Century Britain," 632.
24. O'Hagan, "Pure in Body, Pure in Mind?" 57.
25. O'Hagan, "Packaging Inner Peace," 184.
26. Apple, *Perfect Motherhood*, 76.
27. Hansen, "New Images of a New Medicine," 632; Jones, "Re-Reading Medical Trade Catalogs," 387.
28. Loeb, *Consuming Angels*, 78.
29. Church, "Advertising Consumer Goods in Nineteenth-Century Britain," 624.
30. Cited in Loeb, *Consuming Angels*, 22.
31. *Ibid.*
32. Ewen, *Captains of Consciousness Advertising and the Social Roots of the Consumer Culture*, 170.
33. Lears, "From Salvation to Self-Realization."
34. Loeb, *Consuming Angels*, 55.
35. Anon, "The Composition of Some Proprietary Food Preparations," 29–30.
36. Anon, "New Appliances and Things Medical," 125–126.
37. Burnet, "Lectures on the Feeding of Infants," 279; Hutchinson, *Food and the Principles of Dietetics*.
38. Tosh, "Masculinity: 1560–1918".
39. Thompson, *The Edwardians*, 42.
40. See O'Hagan, "Packaging Inner Peace" on the development of nerve foods; O'Hagan, "Cheltine: The Diabetic Food That Wasn't", <http://www.historymatters.group.shef.ac.uk/cheltine-diabetic-food-wasnt/> on diabetic foods and Eriksson and O'Hagan, "Selling "Healthy" Radium Products with Science" on radium-based foods.
41. Anon, "Analytical Food Preparations," 576–579; Coward and Clark, "The Vitamin Content of Certain Proprietary Preparations," 13–15.
42. Porter, *Health for Sale*.
43. Virol ceased production during World War II and was subsequently taken over by Cavenham Foods (1971), Janks Brothers (1977) and Optrex (1979), before disappearing from shelves altogether around 1984.
44. Clayton and Rowbotham, "How the Mid-Victorians Worked, Ate and Die," 1235–1253.
45. Apple, *Perfect Motherhood*, 161.
46. *Ibid.*, 162.
47. Ewen, *Captains of Consciousness Advertising and the Social Roots of the Consumer Culture*; Loeb, *Consuming Angels*.
48. Apple, "Constructing Mothers," 172–173.
49. van Leeuwen, *Discourse and Practice*, 187.
50. Barker, "Medical Advertising and Trust in Late-Georgian England," 391.
51. Loeb, *Consuming Angels*, 143.
52. Loeb, "Doctors and Patent Medicines in Modern Britain," 404–425; Petty, "Pain-Killer," 387–403; Segal, "The Empowered Patient on a Historical-rhetorical Model," 572–588.
53. O'Hagan, "Pure in Body, Pure in Mind," 4.
54. O'Hagan, "Packaging Inner Peace."
55. Lears, "From Salvation to Self-Realization."
56. Kress and van Leeuwen, *Reading Images*, 124.

57. Hall, *The Sinister Side*.
58. Crane, *The Before and After Trade Card*.
59. Oliver and McDonald, "The Echoes of Barnardo's Altered Imagery".
60. Loeb, *Consuming Angels*, 120.
61. Kress and van Leeuwen, *Reading Images*, 181.
62. Ledin and Machin, *Introduction to Multimodal Analysis*, 210.
63. Kress and van Leeuwen, *Reading Images*, 154.
64. Nelson, Das and Ahn, "A Prescription for Health"; O'Hagan, "Fleshformers or Fads?"
65. Ledin and Machin, "Strategic Diagrams and the Technologization of Culture," 333.
66. Ledin and Machin, *Doing Visual Analysis*, 165.
67. Barker, "Medical Advertising and Trust in Late Georgian England"; Ledin and Machin, *Introduction to Multimodal Analysis*, 188.
68. Ledin and Machin, *Introduction to Multimodal Analysis*, 169.
69. Nelson, Das, and Ahn, "A Prescription for Health."
70. O'Hagan, "Fleshformers or Fads?"
71. Jones, "Re-Reading Medical Trade Catalogs," 391.
72. Whorton, "Civilisation and the Colon," 1586.
73. Whorton, *Inner Hygiene*, 83.
74. Bouchard, *Lectures on Auto-Intoxication in Disease or Self-Poisoning of the Individual*, 18.
75. Cited in Whorton, *Inner Hygiene*, 21.
76. *Ibid.*, 98.
77. Hayward, "Busman's Stomach and the Embodiment of Modernity," 7.
78. Frederick, "Risky Mothers and the Normalcy Project," 76.
79. Thornton, *Advertising, Subjectivity and the Nineteenth-Century Novel*, 65.
80. O'Hagan, "Commercialising Public Health During the 1918–19 Spanish Flu Pandemic in Britain"
81. Nelson, Das, and Ahn, "A Prescription for Health"; O'Hagan, "Commercialising Public Health ..."
82. Hansen, "New Images of a New Medicine."
83. Røstvik, "Blood in the Shower," 54–63; Danilina, Kizyan, and Maksimova, "Euphemisms in Advertising Discourse," 8–22.
84. O'Hagan, "Commercialising Public Health ..."
85. Whorton, *Inner Hygiene*, 98.
86. Jeppe, "Constipation, Purgatives or the Knife? A 19th-Century Dilemma," 856.
87. Whorton, *Inner Hygiene*, 98.
88. Santos, *Half Lives*; Eriksson and O'Hagan, "Selling "healthy" Radium Products with Science".
89. Apple, *Vitmania*.
90. Vincent, "The Politics of Buzzwords at the Interface of Technoscience, Market and Society," 246.
91. Richards, *Commodity Culture of Victorian Britain*, 134.
92. Barker, "Medical Advertising and Trust in Late-Georgian England".
93. *Ibid.*, 396.
94. Jones, "Re-Reading Medical Trade Catalogs," 387.
95. Bartrip, "Secret Remedies, Medical Ethics, and the Finances of the British Medical Journal," 195.
96. Loeb, "Doctors and Patent Medicines in Modern Britain," 418.
97. Anon, "Secret Remedies," 86.
98. Paterson, "Constipation and Its Management," 277.
99. Ledin and Machin, *Introduction to Multimodal Analysis*, 61.
100. Santos, *Half Lives*; Eriksson and O'Hagan, "Selling "Healthy" Radium Products with Science".
101. Porter, *Health for Sale*, 52.
102. Gijswijt-Hofstra, "Introduction: Cultures of Neurasthenia," 1.

103. Oppenheim, 'Shattered Nerves', 3.
104. Agnew, *Healing Waters*, 93.
105. Clarke, *Hysteria and Neurasthenia*; Nagel, *Nervous and Mental Diseases*, 72.
106. Biller, "The Treatment of Neurasthenia," 4–6; Hayward, "Busman's Stomach and the Embodiment of Modernity".
107. O'Hagan, "Packaging Inner Peace".
108. Ibid.
109. El Refaie, *Visual Metaphor and Embodiment in Graphic Illness Narratives*.
110. Ledin and Machin, *Introduction to Multimodal Analysis*, 61.
111. Ledin and Machin, *Doing Visual Analysis*, 99.
112. Ibid., 134.
113. O'Hagan, "Packaging Inner Peace"; Eriksson and O'Hagan, "Selling "healthy" Radium Products with Science".
114. Loeb, "Doctors and Patent Medicines in Modern Britain".
115. Jones, "Re-Reading Medical Trade Catalogs".
116. Nelson, Das, and Ahn, "A Prescription for Health".
117. Hayward, "Busman's Stomach and the Embodiment of Modernity".
118. O'Hagan, "Packaging Inner Peace"; Eriksson and O'Hagan, "Selling "Healthy" Radium Products with Science".
119. Porter, *A Social History of Madness*, 177.
120. O'Hagan, "Fleshformers or Fads?"
121. Zweiniger-Bargielowska, "Building a British Superman," 596.
122. Hayward, "Desperate Housewives and Model Amoebae," 42.
123. Ibid.
124. O'Hagan, "Packaging Inner Peace"; Eriksson and O'Hagan, "Selling "Healthy" Radium Products with Science".
125. Eriksson and O'Hagan, "Selling "Healthy" Radium Products with Science"; O'Hagan, "Fleshformers or Fads?"
126. Ledin and Machin, *Introduction to Multimodal Analysis*, 169.
127. O'Hagan, "Fleshformers or Fads?"
128. Ledin and Machin, "Strategic Diagrams and the Technologization of Culture," 333.
129. O'Hagan, "Fleshformers or Fads?"
130. Santos, *Half Lives*; Eriksson and O'Hagan, "Selling "Healthy" Radium Products with Science".
131. O'Hagan, "Pure in Body, Pure in Mind".
132. O'Hagan, "Packaging Inner Peace".
133. Apple, *Vitamina*.
134. Nelson, Das, and Ahn, "A Prescription for Health".
135. O'Hagan, "Commercialising Public Health ..."
136. Chen and Eriksson, "Connoting a Neoliberal and Entrepreneurial Discourse of Science Through Infographics and Integrated Design".
137. Cederström and Spicer, *The Wellness Syndrome*.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Notes on contributor

Dr Lauren Alex O'Hagan is currently a Researcher in the Department of Media and Communication Studies at Örebro University, Sweden, where she works on the 'Communication on Healthy and Sustainable Foods' project. She specialises in performances of social class and power mediation in the late nineteenth and early twentieth century through visual and material artefacts,

using a methodology that blends social semiotic analysis with archival research. She has published extensively on the sociocultural forms and functions of book inscriptions, food packaging and advertising, postcards and writing implements.

Bibliography

- Agnew, Jeremy. *Healing Waters: A History of Victorian Spas*. Jefferson: McFarland, 2019.
- Anon. "New Appliances and Things Medical." *The Hospital* May 12 (1894): 125–126.
- Anon. "Analytical Food Preparations." *Edinburgh Medical Journal* 6, no. 6 (1899): 576–579.
- Anon. "The Composition of Some Proprietary Food Preparation's." *British Medical Journal* Jan. 1 (1910): 29–30.
- Anon. "Secret Remedies." *British Medical Journal* Jul. 13 (1912): 86.
- Apple, Rima. "Constructing Mothers: Scientific Motherhood in the Nineteenth and Twentieth Centuries." *Social History of Medicine* 8, no. 2 (1995): 161–178.
- Apple, Rima. *Vitamina: Vitamins in American Culture*. New Brunswick: Rutgers University Press, 1996.
- Apple, Rima. *Perfect Motherhood: Science and Childrearing in America*. New Brunswick: Rutgers University Press, 2006.
- Barker, Hannah. "Medical Advertising and Trust in Late Georgian England." *Urban History* 36, no. 3 (2009): 379–398.
- Bartrip, Peter. "Secret Remedies, Medical Ethics, and the Finances of the British Medical Journal." In *The Codification of Medical Morality*, edited by R. Baker, 191–204. London: Springer, 1995.
- Billier, J. G. "The Treatment of Neurasthenia." *Journal of the American Medical Association* 38, no. 1 (1902): 4–6.
- Bouchard, Charles. *Lectures on Auto-Intoxication in Disease or Self-Poisoning of the Individual*. Philadelphia: Davis, 1906.
- Brown, P. S. "The Vendors of Medicines Advertised in Eighteenth-Century Bath Newspapers." *Medical History* 19, no. 4 (1975): 352–369.
- Burnet, James. "Lectures on the Feeding of Infants." *The Hospital* Jan. 14 (1905): 279.
- Cederström, Carl, and André Spicer. *The Wellness Syndrome*. London: Polity Press, 2015.
- Chen, Ariel, and Göran Eriksson. "Connoting a Neoliberal and Entrepreneurial Discourse of Science Through Infographics and Integrated Design: The Case of 'Functional' Healthy Drinks." *Critical Discourse Studies* (2021). doi:10.1080/17405904.2021.1874450.
- Church, Roy. "Advertising Consumer Goods in Nineteenth-Century Britain: Reinterpretations." *The Economic History Review* 53, no. 4 (2000): 621–645.
- Clarke, J. Michell. *Hysteria and Neurasthenia*. London: John Lane, 1905.
- Clayton, Paul, and Judith Rowbotham. "How the Mid-Victorians Worked, Ate and Died." *International Journal of Environmental Research and Public Health* 6, no. 3 (2009): 1235–1253.
- Collins, E. J. T. "Food Adulteration and Food Safety in Britain in the 19th and Early 20th Centuries." *Food Policy* 18, no. 2 (1993): 95–109.
- Corley, T. A. B. "Competition and the Growth of Advertising in the U.S. and Britain, 1900–1914." *Business and Economic History* 17, no. 188 (1988): 155–167.
- Coward, K. H., and A. J. Clark. "The Vitamin Content of Certain Proprietary Preparations." *British Medical Journal* 1 (1923): 13–15.
- Crane, Ben. *The Before and After Trade Card*. New York: Ephemera Society of America, 1995.
- Curth, Louise Hill. "The Commercialisation of Medicine in the Popular Press: English Almanacs, 1640–1700." *The Seventeenth Century* 17, no. 1 (2002): 48–69.
- Danilina, Elena A., Ekaterina E. Kizyan, and Daria S. Maksimova. "Euphemisms in Advertising Discourse: Putting on a Positive Face and Maintaining Speech Etiquette." *Training Language and Culture* 3, no. 1 (2019): 8–22.
- Doyle, Peter, and Phil Stern. *Marketing Management and Strategy*. London: Pearson, 2006.
- El Refaie, Elisabeth. *Visual Metaphor and Embodiment in Graphic Illness Narratives*. Oxford: Oxford University Press, 2018.

- Eriksson, Göran, and Lauren Alex O'Hagan. "Selling "Healthy" Radium Products with Science: A Multimodal Analysis of Marketing in Sweden, 1910–1940." *Science Communication* (2021). doi:10.1177%2F10755470211044111.
- Ewen, Stuart. *Captains of Consciousness Advertising and the Social Roots of the Consumer Culture*. New York: McGraw-Hill, 1976.
- Frederick, Angela. "Risky Mothers and the Normalcy Project: Women with Disabilities Negotiate Scientific Motherhood." *Gender and Society* 31, no. 1 (2017): 74–95.
- Gijswijt-Hofstra, Maria. "Introduction: Cultures of Neurasthenia: From Beard to the First World War." In *Cultures of Neurasthenia: From Beard to the First World War*, edited by Maria Gijswijt-Hofstra, and Roy Porter, 1–31. Amsterdam: Rodopi, 2005.
- Hall, James. *The Sinister Side: How Left-Right Symbolism Shaped Western Art*. Oxford: Oxford University Press, 2008.
- Hansen, Bert. "New Images of a New Medicine: Visual Evidence for the Widespread Popularity of Therapeutic Discoveries in America After 1885." *Bulletin of the History of Medicine* 73, no. 4 (1999): 629–678.
- Hayward, Rhodri. "Desperate Housewives and Model Amoebae: The Invention of Suburban Neurosis in Inter-War Britain." In *Health and the Modern Home*, edited by Mark Jackson, 42–63. London: Routledge, 2005.
- Hayward, Rhodri. "Busman's Stomach and the Embodiment of Modernity." *Contemporary British History* 31, no. 1 (2017): 1–23.
- Hutchinson, Robert. *Food and the Principles of Dietetics*. London: Edward Arnold, 2017.
- Jackson Lears, T. J. "From Salvation to Self-Realization: Advertising and the Therapeutic Roots of the Consumer Culture, 1880–1930." *Advertising & Society Review* 1, no. 1 (2000). doi:10.1353/asr.2000.0009.
- Jeppe, Cara. "Constipation, Purgatives or the Knife? A 19th-Century Dilemma." *South African Medical Journal* 84, no. 12 (1994): 855–857.
- Jones, Claire Louise. "(Re-)Reading Medical Trade Catalogs: The Uses of Professional Advertising in British Medical Practice, 1870–1914." *Bulletin of the History of Medicine* 86, no. 3 (2012): 361–393.
- Kress, Gunther, and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design*. London: Routledge, 1996.
- Ledin, Per, and David Machin. "Strategic Diagrams and the Technologization of Culture." *Journal of Language and Politics* 15, no. 3 (2016): 332–336.
- Ledin, Per, and David Machin. *Doing Visual Analysis*. London: SAGE, 2018.
- Ledin, Per, and David Machin. *Introduction to Multimodal Analysis*. London: Bloomsbury, 2020.
- Loeb, L. A. *Consuming Angels: Advertising and Victorian Women*. Oxford: Oxford University Press, 1994.
- Loeb, L. A. "Doctors and Patent Medicines in Modern Britain: Professionalism and Consumerism." *Albion: A Quarterly Journal Concerned with British Studies* 33, no. 3 (2001): 404–425.
- Luhmann, Niklas. *Trust and Power*. London: Wiley, 1979.
- Mørk Røstvik, Camilla. "Blood in the Shower: A Visual History of Menstruation and Clean Bodies." *Visual Culture and Gender* 13 (2018): 54–63.
- Murdock, Caitlin E. "Selling Scientific Authority: Radium Spas, Advertising and Popular Understandings of Radioactivity in Germany, 1900–1937." *German History* 35, no. 1 (2017): 21–42.
- Nagel, Joseph Darwin. *Nervous and Mental Diseases: A Manual for Students and Practitioners*. New York: Lea Brothers & Co, 2012.
- Nelson, Michelle R., Susmita Das, and Regina J. Ahn. "A Prescription for Health: (Pseudo)Scientific Advertising of Fruits and Vegetables in the Early 20th Century." *Advertising & Society Quarterly* 21, no. 1 (2020). doi:10.1353/asr.2020.0007.
- O'Hagan, Lauren Alex. "Cheltine: The Diabetic Food That Wasn't," 2021a. <http://www.historymatters.group.shef.ac.uk/cheltine-diabetic-food-wasnt/>.

- O'Hagan, Lauren Alex. "The Dip Pen as a Source of Social Distinction in Victorian Britain." *History of Retailing and Consumption* 4, no. 3 (2018): 187–216.
- O'Hagan, Lauren Alex. "The Advertising and Marketing of the Edwardian Prize Book: Gender for Sale." *English Literature in Transition* 62, no. 1 (2019a): 72–94.
- O'Hagan, Lauren Alex. "Packaging Inner Peace: A Sociohistorical Exploration of Nerve Food in Great Britain." *Food and History* 17, no. 2 (2019b): 183–222.
- O'Hagan, Lauren Alex. "Pure in Body, Pure in Mind? A Sociohistorical Perspective on the Marketisation of Pure Foods in Great Britain." *Discourse, Context and Media* 34 (2020): 1–9.
- O'Hagan, Lauren Alex. "Fleshformers or Fads? Historicizing the Contemporary Protein-Enhanced Food Trend." *Food, Culture and Society* (2021b). doi:10.1080/15528014.2021.1932118.
- O'Hagan, Lauren Alex. "Commercialising Public Health During the 1918–19 Spanish Flu Pandemic in Britain." *Journal of the History of Retailing and Consumption* (2021c). <https://www.emerald.com/insight/content/doi/10.1108/JHRM-12-2020-0058/full/html>
- Oliver, Mark, and Zeta McDonald. "The Echoes of Barnardo's Altered Imagery." *The Guardian*, 2002. <https://www.theguardian.com/society/2002/oct/03/advertising.childprotection>.
- Oppenheim, Janet. *Shattered Nerves: Doctors, Patients and Depression in Victorian England*. Oxford: Oxford University Press, 1991.
- Paterson, Donald. "Constipation and Its Management in Infancy and Childhood." *British Medical Journal* 1 (1926): 277–278.
- Petty, Ross D. "Pain-Killer: A 19th Century Global Patent Medicine and the Beginnings of Modern Brand Marketing." *Journal of Macromarketing* 39, no. 3 (2019): 387–303.
- Pope, Daniel. *The Making of Modern Advertising*. New York: Basic Books, 1983.
- Porter, Roy. *Health for Sale: Quackery in England, 1660–1850*. Manchester: Manchester University Press, 1989.
- Porter, R. *A Social History of Madness: Stories of The Insane*. Bicester: Phoenix, 1996.
- Putnam, Robert. *Bowling Alone: The Collapse and Renewal of American Community*. New York: Simon & Schuster, 2000.
- Richards, Thomas. *The Commodity Culture of Victorian Britain*. London: Verso, 1990.
- Santos, Lucy Jane. *Half Lives: The Unlikely History of Radium*. London: Icon Books Ltd, 2020.
- Scott, Linda M. "Woodbury Soap: Classic Sexual Sell or Just Good Marketing?" *Advertising & Society Review* 16, no. 1 (2015). doi:10.1353/asr.2015.0008.
- Segal, Judy Z. "The Empowered Patient on a Historical-rhetorical Model: 19th-century Patent-medicine ads and the 21st-century Health Subject." *Health* 24, no. 5 (2020): 572–588.
- Thompson, Paul. *The Edwardians: The Remaking of British Society*. London: Routledge, 1992.
- Thornton, Sarah. *Advertising, Subjectivity and the Nineteenth-Century Novel*. London: Palgrave Macmillan, 2009.
- Tomes, Nancy. *Remaking the American Patient: How Madison Avenue and Modern Medicine Turned Patients into Consumers*. Chapel Hill: University of North Carolina Press, 2016.
- Tosh, John. "Masculinity: 1560–1918: Men Defining Men and Gentleman." 2002. http://www.ampltd.co.uk/digital_guides/masculinity-part-2/Editorial-Introduction.aspx.
- van Leeuwen, Theo. *Discourse and Practice: New Tools for Critical Discourse Analysis*. Oxford: Oxford University Press, 2008.
- Vincent, Bernadette Bensaude. "The Politics of Buzzwords at the Interface of Technoscience, Market and Society: The Case of 'Public Engagement in Science.'" *Public Understanding of Science* 23, no. 3 (2014): 238–253.
- Walker Laird, Pamela. *Advertising Progress: American Business and the Rise of Consumer Marketing*. Baltimore: John Hopkins University Press, 1998.
- Whorton, James. "Civilisation and the Colon: Constipation as the 'Disease of Diseases.'" *British Medical Journal* 321, no. 7276 (2000a): 1586–1589.
- Whorton, James. *Inner Hygiene: Constipation and the Pursuit of Health in Modern Society*. Oxford: Oxford University Press, 2000b.
- Zweiniger-Bargielowska, Ina. "Building a British Superman: Physical Culture in Interwar Britain." *Journal of Contemporary History* 41, no. 4 (2006): 595–610.