Introduction
In the late 1980s and 1990s, the Hong Kong beverage company Vitasoy (維他奶) launched an advertising campaign for its soybean milk that tapped into an increasingly prominent public sense of longing for the past, particularly the seemingly less anxious golden era of the 1960s and 1970s. Vitasoy’s self-conscious adoption of a nostalgic aesthetic in its commercials cast Vitasoy and its soybean milk as emblematic of an earlier innocence. A drink that accompanied one through life’s various transitions: childhood innocence to young love to marriage, Vitasoy presented itself as a marker of both individual memories and collective histories, a symbol of trust in a time of uncertainty and dislocation (Chan 2015). The Vitasoy product appeared in each frame, but in two different packaging forms: the small tetra-pak box with a crooked neck straw and the curved, clear soda bottle. These packaging forms are the material “we see but we don’t see” (Cochoy and Grandclément 2005). Within the context of Vitasoy’s advertising campaign, the soda bottle and tetra-pak are evocative of different temporal moments (e.g., past and present) and reflective of the company’s branding. Beyond these gestures towards reflective nostalgia and Hong Kong identity, the packaging would appear to serve no other function beyond technical utility (i.e., that which holds and transports soybean milk) and marketing (Figure 1). The specificity of the packaging was, it would seem, incidental to “Vitasoy’s exploitation of nostalgia and local historicity to reinvent its brand” (Chan 2015: 170).

Despite the deliberate allusions to an earlier period in both Vitasoy’s and Hong Kong’s history, there was a limit to which Vitasoy would draw upon the past. The one packaging form absent from Vitasoy’s affective excursion was the milk bottle, the original packaging material for Vitasoy’s soybean milk in the 1940s (Figure 2). Indeed, for most Hong Kong consumers and due to the prominence with which Vitasoy has become associated with the classic soda bottle of the 1960s, the fact that Vitasoy was once sold in milk bottles may come as a surprise. So long as packaging is seen, but not seen, Vitasoy’s milk...
In this essay, I analyze the story of Vitasoy’s origins and its adoption of the milk bottle in order to take seriously the question of how packaging can reify social and cultural ideas in flux and effect change on everyday practices of eating. Drawing on the work of Gay Hawkins (2013), who has argued for the performativity of food packaging or the ways in which food packaging as ‘market devices’ acquire ‘the capacity to articulate new economic actions and cultural practices around food,’ I seek to illuminate the field of social and material relations that generated and were generated by the Vitasoy milk bottle. When Vitasoy began making and selling soybean milk in 1940, the materiality of the milk bottle underscored and participated in assembling producers and consumers in both productive and problematic ways. The milk bottle was a material instantiation of a pattern of desires closely associated with global modernity that gestured beyond the geographical specificity of Hong Kong to an idealized community of rational, health-minded milk drinkers. As a marker of hygienic modernity and a badge of humanitarian relief and nutritional activism, the milk bottle conveyed seemingly universal ideals about health and fitness and materially affirmed the new idea that soybean milk was a dairy substitute. How the Vitasoy milk bottle could perform such functions requires disentangling the multiple lines of influence, local and global, that helped make the milk bottle meaningful.

While it is tempting to attribute the adoption of the milk bottle to the technical benefits of such packaging, it is important to remember that the milk bottle was not the only packaging option available in the 1940s; nor was it necessarily the most effective form in which to sell soybean milk. (That the milk bottle was ultimately abandoned seems to further demonstrate the inefficiency of this packaging form for selling soybean milk.) And yet, the choice of the milk bottle made intellectual sense at the time—perhaps the most intellectual sense—because it articulated a series of concerns that straddled national identity and public health and seemed to bridge social and cultural divides between the global and the local. Indeed, the milk bottle worked to naturalize the rhetorical framing of soybean milk as a cow’s milk substitute in ways not unlike the visual trope in development literature that Timothy Mitchell (2002) has critiqued for establishing specific relationships of analysis that domesticate specific bioculturalist assumptions as universals. In Mitchell’s words, ‘Such relationships are never simple. Objects of analysis do not occur as natural phenomena, but are partly formed by the discourse that describes them. The more natural the object appears, the less obvious this discursive manufacture will be’ (2002: 210). The materiality of the milk bottle brings into physical form the discursive construction of soybean milk as a cow’s milk substitute and underscores the extent to which the instrumentality of the glass milk bottle was inseparable from broader field of meaning of milk. This construction was never uncontested, and Vitasoy’s own experiences with the milk bottle highlight the fraught ways in which form can, and cannot, dictate substance.

While much has been written about the development of industrialized systems of food production in the global north, and to some extent for areas beyond, the role of packaging in these transformations remains largely unresearched (Bentley 2014; Bobrow-Strain 2012; Lang 2003; Montanari 1996; Warner 2013). Much of the work on the development of industrialized food chains in China has been limited to the post-Mao period, such that one might, not unreasonably, conclude that the issue of industrial food and packaging was a contemporary phenomenon without much precedent prior to the 1980s (Jing 2000; Millstone and Lang 2013; Schneider 2015; Smil 2005; Watson 1997). And yet, this cannot be entirely the case. The transformation of the soybean into a global agro-industrial crop in the early twentieth century gestures to multiple histories for the development of industrial food and packaging in China and how its path has been uneven and patchy and highly intertwined with specific foods (Du Bois et al. 2008; Fu 2018a; Prodöhl 2010; Prodöhl 2013; Wen 2015). Looking at Vitasoy, one of the first soybean milk companies to specialize in making commercial grade soybean milk, offers us a critical vantage for exploring the patterns of desire and regimes of thought integral to the development of an industrial food product. The Vitasoy milk bottle is ‘good to think with,’ in that the material form can help motivate us to excavate the forms of speculation that have arisen from,
then reattached to, become embodied in or reembodied in the milk bottle that first gave rise to it. Particularly as the Vitasoy milk bottle was ultimately rejected, unpacking the package—the patterns of desire and the regimes of thought that made the milk bottle more than just a glass bottle—will help us better evaluate the ways in which packaging can, and cannot, articulate new forms of economic action and cultural practices around food.

The Milk Bottle
From its wide rim to the general shape of the bottle, the Vitasoy milk bottle resembled the bottle used by the most prominent local dairy in Hong Kong, the Dairy Farm established in 1886 by Scottish physician and founder of the field of tropical medicine, Sir Patrick Manson. The Vitasoy bottle of the 1940s consisted of a short and narrow body that had been embossed with raised lettering of Vitasoy's Chinese name ʹWeitanaiʹ and that gently sloped up toward a wide rim. The Dairy Farm milk bottle had a narrower body and a more pronounced heel leading to the bottle's base (Figure 3). Although the general impression of the Dairy Farm milk bottle was more elongated, both bottles had the characteristic wide rim that has come to typify milk bottles in the early twentieth century. Vitasoy’s bottles were purchased and shipped from Shanghai (Cai Baoqing 1990). In contrast, the Dairy Farm imported its bottles first from Europe and after 1915 from the United States (Creamery and Milk Plant Monthly 1915). Both the Dairy Farm trademark and its milk bottles were subject to imitation. Local Hong Kong newspapers repeatedly reported on cases before the Kowloon magistracy in which Chinese dairies such as Yuen Yuen Dairy, Kowloon Ng Chow Dairy, and Wu A Sze Dairy were under investigation 'for their possession for sale or some purpose of trade or manufacture bottles to which had been applied a mark so nearly resembling the [Dairy Farm] trade mark ... as to be calculated to deceive' (Hong Kong Daily Press 1937). In most instances, the Kowloon magistracy was most concerned about trademark infringement such that, in the case of the Kowloon Ng Chow Dairy, the charges were dismissed 'owing to the fact that except the fluting and shape of the bottles the other marks were entirely different' (Hong Kong Daily Press 1937). For our purposes, the fact that similarities in bottle shape and appearance fell within the realm of permissible imitation indicates the general acceptance of the milk bottle as a recognizable form. Vitasoy's milk bottle can be seen as in keeping with such expectations.

How Vitasoy settled upon the milk bottle requires an excursion into the non-material forces reshaping soybean milk in the early twentieth century. In 1953, the Far Eastern Economic Review published an essay by K.S. Lo (Lo Kwee Seong 羅桂祥, 1910–1995), the founder and then president of Hong Kong Soya Bean Products Co., Ltd. who attributed the origins of the company to the serendipitous perusal of a morning newspaper. In 1936, Lo happened upon an article about the food value of the soybean. According to Lo, ‘It was a report of a talk given by a certain Dr. Webb on the nutritional qualities of the humble bean. I was very much impressed by it, although little did I know then, that the spark that was thus kindled was to grow into an unquenchable flame, and that I was to associate myself with the little lowly bean, perhaps for the rest of my life’ (Lo 1953: 568). In later recollections, Lo continued to highlight the serendipitous nature of the origins of his soybean milk venture, although certain details shifted with time (Lo 1964; Cai Baoqing 1990). Instead of a certain Dr. Webb, Lo attributed his interest in the soybean to a talk given by Julean Arnold in Shanghai in 1937. Arnold, according to Lo, called the soybean ‘the cow of China’ and claimed that the Chinese race practically owed its existence to the soybean for ‘maintaining their physical fitness for over 5,000 years in a land where meat was so rare.’ Such a claim made a profound impression upon the young Lo, and when he returned to Hong Kong, he immediately began conducting experiments in making a formulated soybean milk which could serve as a milk substitute’ (Lo 1964: 18).

Lo’s interest in the soybean came during an especially anxious period when heightened political tensions and military aggression made the prospect of peace between China and Japan increasingly tenuous. All pretense of
peace was abandoned after the Marco Polo Incident of 7 July 1937, when the apparent disappearance of a Japanese soldier became the pretext for the exchange of open fire between Chinese and Japanese troops. Tensions escalated over the course of the month, and on 31 July, Chiang Kai-shek declared that 'all hope for peace has been lost' (Mitter 2014: Kindle loc. 9519). Although neither side formally declared war, war had nonetheless erupted. By the time Lo began experimenting in making a commercial soybean milk, Japan had already launched its military assault of Guangdong province and captured Guangzhou in November 1938. Hong Kong, as a British colony, temporarily escaped direct fighting and even benefited economically when it became an important lifeline for Nationalist China, but the effects of war were substantial nonetheless.

Refugees by rail, steam, and foot flooded into the colony. In June 1939, the Hong Kong government estimated that the population was between 1.8 and 2.2 million, of which an estimated 700,000 were refugees (Yip et al. 2016: 42). In the first four years of war, Hong Kong absorbed a population increase of 63 percent (Tsang 2004: 114). With the sudden and unrelenting inflow of refugees, local living and economic conditions became increasingly tenuous. Housing was in short supply, and there was a great demand for short-term tenancy. Reports estimated an average of 60 people shared an apartment. Overcrowded, poorly ventilated, and unhygienic tenements proliferated. Food prices soared. According to K. S. Lo,

> Along with the refugees came the problems of food supply, malnutrition, and diseases. Prices on food shot up with the sudden increase of population. This not only affected the refugees but also the middle and lower sections of the local residents. Diseases due to malnutrition, such as beri-beri, T.B., and pellagra became more and more common everyday. (Lo 1953: 568)

His post-facto observations can be substantiated by statistics gathered by the Hong Kong government. The number of beriberi patients increased from 563 in 1935 to 2,061 in 1938 (Yip et al. 2016: 43).

The colonial government implemented price control over rice, and it established the Nutrition Research Committee in 1938 to investigate ways to produce ‘an economic but satisfactory dietary within the means of even the poorer class’ (Yip et al. 2016: 43). The Committee came up with a dietary that cost 11.3 cents per day for those over seven years of age and 8.2 cents for those up to the age of seven (Yip 2015). The Committee also adopted the plan to develop soybean milk venture underscores both the importance of developments in Shanghai to Hong Kong society and the influence of scientific nutrition in sanctioning a pattern of desire that privileged the goodness of dairy milk. Arnold (1875–1946) was an American businessman who had served as the US Commercial Attaché to China from 1914 until 1940. A most vocal proponent for the development of a Chinese soybean milk industry, Arnold had developed interests in Chinese soybeans well before he left his government position. But his advocacy intensified after 1940, partly on account of his increased involvement in local refugee relief efforts. Of particular relevance was his role in organizing the Refugee Children’s Nutritional Aid Committee (Shanghai nanmin ertong yingyang weiyu‌-‌anhui 上海難民兒童營養委員會; henceforth ‘Refugee Children’s Committee’), a local relief organization that emerged under the shadow of the Japanese invasion of Shanghai in the summer of 1937. Financed by a grant from the New York based American relief organization, China Child Welfare, and donations from members of Shanghai’s German community, the Refugee Children’s Committee attempted to assist in the feeding of the thousands of children swelling Shanghai’s many refugee camps. Dairy milk was initially considered. As Arnold recounted, ‘Shanghai was one of the very few places in China where there were dairies. However, the total number of cows in these dairies were but a few hundred’ (Arnold 1945: 36). Tinned and powdered milks were also available, but impractical given the numbers of children to feed and limited funds.

Through a combination of creativity and necessity, the Refugee Children’s Committee began producing and distributing a scientifically-tested formula for soybean milk and soybean cakes. They served an estimated 10,000 to 15,000 refugee children between November 1937 and March 1938. Through its nutritional activism, the Refugee Children’s Committee redefined soybean milk as a nutritional salve (Fu 2012). High in protein with good vitamin coverage, the soybean represented a homegrown solution to a human crisis of epic proportion. Children, as the
bearers of the future and the leaders of tomorrow, were understood to be physiologically ill-equipped to deal with long periods of nutritional deprivation. Thus, soybean milk served as a nutritional supplement—a nutraceutical before the term had even been invented—to protect Shanghai's refugee children from malnutrition and deficiency diseases.5

The Refugee Children's Committee justified its use of the soybean by emphasizing the role of nutrition science in demonstrating the nutritional comparability of soybean milk to cow's milk (China Child Welfare 1938). Soybean milk was rich in vitamin A and B. It lacked calcium, but calcium could be added to soybean milk to achieve a similar effect. In addition, soybeans were high in protein. Clinical trials in the 1920s and 1930s, which had been conducted by Chinese scientists, demonstrated that young infants could grow normally on a diet of soybean milk, supplemented with cane sugar, cod liver oil, orange juice, rice porridge, spinach puree, and sodium chloride (Adolph 1922; Chang and Tso 1931; Horvath 1938; Tso 1928; Wen Zhongjie 1930; Wu Guangji 1930). Other experimental work on soybean milk conducted during the 1920s and 1930s further reified the commensurability of cow's milk and soybean milk by implying the two substances were necessarily designed or consumed for the same purposes. The broader medical community's fascination with soybean milk as a cow's milk substitute was of quite recent manufacture and, in China especially, served to parlay concerns about national fitness and competitiveness into social engineering projects (Fu 2018a). What this sanitized, medicalized explanation from the Refugee Children's Committee excludes is how important, and emotionally-charged, the issue of milk and the feeding of the young had become throughout the Republican period, but especially at this moment of all-out war with Japan (Fu 2018b).

Julian Arnold and the Refugee Children's Committee drew a parallel between soybean milk and cow's milk. The soybean, as Arnold famously said, was 'the cow of China.' This comparison of the soybean with the cow might sound strange to our contemporary ears, but the early twentieth century was awash in the seductive glories of cow's milk. In the United States, it was considered the 'perfect' food—perfect for all people and nutritionally perfect in every way (Dupuis 2002). It was described as the critical ingredient in the rise of Western civilization, the traditional food that enabled the West to rise above the motley crowd, the unwashed, the underdeveloped. According to Elmer V. McCollum (1879–1967), the scientist who has been credited with the discovery of vitamin A (found in the fat of whole milk), the presence or absence of cow's milk in one's diet led to sharp differences in character, quality of life, and social achievement, to name just a few.

Those people who have employed the leaf of the plant as their sole protective food are characterized by small stature, relatively short span of life, high infant mortality, and by contended adherence to the employment of the simple mechanical inventions of their forefathers. The peoples who have made liberal use of milk as a food, have, in contrast, attained greater size, greater longevity, and have been much more successful in the rearing of their young. They have been more aggressive than the non-milk using people, and have achieved much greater advancement in literature, science, and art. (McCollum 1918: 150–1)

The two fluids, though originating from different sources—one plant, the other animal—were juxtaposed as biological counterparts in both function and form, and using nutritional indices, comparable in nutritive composition. If cow's milk possessed the alimentary ingredients for civilizational advancement, then what might its plant-based substitute achieve? As a 'native' product with the potential to serve multiple purposes, the soybean functioned as a kind of modern simulacrum. It was a grain that could mimic the properties of meat and dairy and thereby satisfy the protein needs of a developing country without the formidability, if not impractical, expenditure of immediate resources to build a dairy industry from scratch.7 It was an agricultural crop whose desirability rested upon a preternatural ability for industrial manipulation and re-composition into a variety of new products ranging from the more recognizable like vegetable oil and fodder to the inconspicuous as evidenced by synthetic paints, plastics, and soaps. The value of the soybean lay in its potential to be something else. That the soybean should be so amenable to industrial experimentation might be dismissed as one of life's unexpected serendipities, but that its explication and popularization as soybean milk should be premised upon the poetic imagery of an ancient land and the lyricism of absence takes us into the descriptive fictions that Mitchell has so eloquently critiqued as objects of development (Mitchell 2002).

Thus, when Lo finally set-up Hong Kong Soya Bean Products with start-up capital of HK $15,000 and built a factory at Causeway Bay, the product he created was explicitly marketed as a dairy substitute (niunai daiyongpin 牛奶代用品) (Cai Baoging 1990: 19; Lo 1953: 568; Hong Kong Daily Press 1940). According to Lo, 'the aim and object of this new venture was to bring better nutrition to the masses of people at the price they could afford to pay' (Lo 1964: 18). Speaking before an audience of invited guests that included Dr. Selwyn-Clarke, Lo described 'Vita milk,' Vitasoy's English name at the time, as the material expression of the company's earnest desire to provide 'a cheap source of supply of nutritious food, which was within the reach of the masses.' Sir Man-kam Lo (no relation; Luo Wenjin 羅文鏡, 1893–1959), a prominent Eurasian lawyer and one of three Chinese representatives in the Legislative Council, officiated the opening ceremony and asserted that Vitasoy, and its soybean milk product, exemplified the social conscience of the Colony. In Sir Man-kam Lo's words, that soya bean can be made into a milk is, of course, well-known. And it seems to me that any concern which could produce, under approved hygienic conditions, soya bean milk in such quan-
tity as to be available to the poorer section of the community and at such low prices as to be within their means, would be rendering a public service to the Colony. (Hong Kong Daily Press 1940)

As a poor man’s milk (qiongren de niunai 穷人的牛奶), Vitasoy received government approval and backing. Three years after the start of production, Vitasoy was routinely served to third-floor patients at Queen Mary Hospital as well as given to patients at the Kowloon tuberculosis clinic run by Saint Mary’s Hospital (Cai Baoqing 1990: 19).

This explicit framing and packaging of soybean milk as ‘a poor man’s cow’s milk’ further justified the company’s decision to also adopt the subscription model for its soybean milk. Like the dairy run, customers received their soybean milk in half-pint glass bottles at their homes. Each morning, starting around 5 a.m., three or four deliverymen would leave the factory with freshly made soybean milk and deliver on bicycle to individual households. Each household paid a deposit on the bottles and exchanged empty ones for fresh ones. The sense that Vitasoy should be and was sold in milk bottles had been conditioned by the cultural nexus of meanings intertwining the soybean with the cow as both producers of milk.

The naturalness of selling soybean milk in milk bottles and dairy runs was conditioned, but not predetermined, by the growing social and cultural value of cow’s milk. Earlier Chinese commercial ventures in Shanghai provide momentary glimpses of other social and cultural forces influencing the production and packaging of soybean milk. By 1934, at least fifteen manufacturers of commercial soybean milk had been set up and were in operation in Shanghai. These modern commercial ventures distinguished themselves from the typical food stalls and tofu shops also selling doujiang (soybean milk) through their packaging and organization of sales. In Shanghai, where drinking doujiang was more popular as a form of fast-food breakfast, soybean milk could be purchased at ‘sesame cake store’ (dabing dian 大餅店), whose major business was breakfast. Customers could dine in or take-out food such as sesame cakes, fried dough sticks, steamed bread, fried bread, glutinous rice cakes, noodle soup, won ton (dumpling) soup, and soybean milk (Lu 1999: 264–5). If purchased at the sesame cake store, soybean milk was not packaged in glass bottles and instead was consumed on-site or taken home, perhaps in vessels supplied by the customer. Shanghai soybean milk companies adopted the subscription model of sale and sent their product out in soybean milk runs. Delivery might occur by foot ‘by coolies each with two baskets on bamboo’ or bicyclists, who fanned out into Shanghai’s various districts early in the morning, roughly from five until eight am, to deliver fresh soybean milk by monthly subscription (SMA 1934: 70).

Some companies bottled their milk in beer bottles, mostly green in color and corked at the top. Others used ‘tomato-sauce bottles’ or soda bottles. Bottles were typically unlabeled, but in a few instances, the manufacturer conscientiously marked each with text ‘solely in the Chinese language’ detailing the ‘name of the factory, trade name, and telephone with address’ as well as a pithy tagline like ‘Nourishing food for winter’ (dongji bupin 冬季補品) (SMA 1934: 70). One company, Federal Soybean Milk (Fada’er dounai gongsi 發達而豆奶公司), sold their product in thermos flasks (Figure 4). Glass bottles, thermoses, and bicycles—all signifiers of Chinese modernity—elevated these soybean milk companies above the common fray of bean curd shops and food stalls.

Shanghai soybean milk companies tended to adopt a more eclectic approach to marketing and selling soybean milk. Most practiced a form of neotraditionalism in their advertisements by intermixing traditional and modern appeals to the consumer. The neotraditionalism in soybean milk advertisements came in several forms—the
emphasis on seasonality, associations with the *yangsheng* tradition and longevity, the purported Chinese medical efficacies—and yet, its most distinguishing mark lay in the embrace of multiplicities of time, space, language, and imagery. These seemingly traditional elements were neither radically different nor temporally dislodged from the seemingly more modern characteristics associated with an industrial commodity economy, bourgeois domesticity, and scientific nutrition. Mixed together and bridging old and new, East and West, Shanghai soybean milk advertisements during the pre-war period represented the power of re-invention and creativity. Consider the palate to which these soybean milk companies appealed. All soybean milk companies produced and sold soybean milk in its original flavor, but several offered soybean milk in flavors such as such as salty, sweetened, almond, ‘snow pear’ (*xue梨*), lemon, banana, orange, and chocolate (SMA 1934: 70–3). These modern purveyors promised convenience and age-old wisdom, bottled and brewed to achieve cleanliness and sanitation.

The eclecticism of packaging options evident among Shanghai soybean milk companies reflected both geographical differences in local understanding of soybean milk and the transitional nature by which soybean milk became re-conceived as a substitute for cow’s milk. Prior to 1937, Chinese companies in Shanghai could experiment with a variety of social and cultural associations in their marketing. *Doujiang* was already recognized as a customary food—one that could be modernized by being sold in glass bottles, but that could also be obtained in more familiar ways at sesame cake stores. The targeted consumer was as likely to be an older gentleman seeking a tonic to nourish his bodily qi as a young mother keen to raise healthy, vigorous children. With the outbreak of war with Japan in 1937, the political implications of soybean milk rose to the foreground and meshed with a more general shift unfolding in soybean milk advertisements by the early 1940s. Children were foregrounded as the proper subjects for the consumption of modern soybean milk, whose nutritional credentials aligned with, if not exceeded cow’s milk, and science became the definitive measure for both the social and commercial value of the product (Fu 2018a).

For post-1940 Hong Kong, a case could be made that soybean milk was less integrated into local diets and thereby untethered to everyday food habits. Without a strong, preexisting tradition for drinking *doujiang*, framing soybean milk as a dairy substitute in Hong Kong would have been less beholden to the same kinds of social and cultural forces evident in Shanghai. In addition, dairy milk may have occupied a more prominent place in local people’s understanding of modern, healthy foods. The first dairy cows arrived in Hong Kong from Britain in 1880, and by 1886, the first dairy farm, called the Dairy Farm, had been established by Sir Patrick Manson (Mak 2012: 45–51). Although fresh milk was primarily produced for and consumed by the European upper class, the Dairy Farm played an important role in introducing western food culture into Hong Kong. It pioneered the importation of fresh butter from Australia in 1907 and established a near monopoly in ice production in Hong Kong after 1918. It also set up an ice cream plant in 1939 (Mak 2012: 48). Moreover, in the Shunde district of the neighboring province of Guangdong, there was a tradition of buffalo’s milk, especially in the form of buffalo cheese (*niurou 牛乳*). Wartime migration brought people into Hong Kong, including chefs from Shunde who applied their culinary acumen in new and unexpected ways such as the adoption of milk in Chinese dim sum (Mak 2012: 52). When coupled with wartime exigencies that prioritized economy and nutritional fortitude, casting soybean milk as a dairy substitute for the colony’s working population represented an extension of Hong Kong’s specific conditions as both a British colony and a destination of wartime migration.

The Japanese attack on Hong Kong in December 1941 halted production as Lo and his family fled inland to Guangdong province from Hong Kong. He and his immediate family had planned to make their way to Kunming, but finding their way blocked by the Japanese military, they retreated back to Guangdong and stayed in Lian county until August 1945 (Cai Baoqing 1990: 25–6). His temporary flight from Hong Kong did not stop his soybean milk enterprise, but it did alter both the conditions of production and the consequent material expressions. His family settled in a small village called Double Happiness Mountain (Shuangxishan 雙喜山) and opened a small food stall, Vita-card (Weita canka 韦他餐卡) that served soybean milk and egg cakes. Lo and his family were able to sustain themselves with the business generated by this food stall until after August 1945, when they returned to Hong Kong. By 1950, Lo had managed to resurrect Vitasoy’s production and sales in such a positive fashion that he felt comfortable enough three years later to assert, ‘we have succeeded in producing a nutritious and wholesome food and put it within reach of the masses’ (Lo 1953: 569).

Although Vitasoy eventually became a popular household beverage, this early history was marked by misapprehensions over taste and counterclaims about nutritional value. The Vitasoy milk bottle, for all the ways in which it attempted to mobilize new meanings and practices, nonetheless failed to surmount local prejudices. Despite the media celebration of soybean milk as a distinctly Chinese food whose value had been confirmed by modern science—'[The soybean’s] food value has long been recognized by our great grandfathers, 5000 years ago; and what our forefathers guessed of its nutritional value has now been verified by the present-day chemists in the modern laboratories’—Hong Kong residents did not recognize soybean milk as a local food (*Hong Kong Telegraph* 1940). This proved especially true when the Legislative Council initially opposed Selwyn-Clarke’s efforts to increase local consumption of soybeans, deriding it as pig feed, not human food (Selwyn-Clarke 1975: 62).

Local people also doubted the nutritional claims made by the company and, instead, believed soybean milk caused diarrhea, indigestion, and stomach ache. Lo writes,
We soon found that, even among us Chinese to whom the soybean was by no means new, there was a strong prejudice against soy milk. They not only did not believe its nutritional values, but thought it could cause diarrhea, indigestion and stomach ache. (Lo 1964: 18)

These sorts of reservations were not without merit. Unless thoroughly cooked, soybean milk can cause the same sorts of bodily discomfort as raw, mature soybeans. Soy proteins are difficult to digest and if poorly digested can give rise to growth inhibition and pancreatic hypertrophy. The carbohydrate component of soybeans are not hydrolyzed by human digestive enzymes and can thus produce gas and flatulence (Huang 2008: 48). Depending on how thoroughly Vitasoy prepared its soybean milk, popular reservations may have proven justified after initial, less than satisfactory experiences. As Lo himself acknowledged, ‘At that stage the taste of our product, too, left much to be desired. Many consumers found it hard to take, because of the strong beany flavor and the slightly bitter taste’ (Lo 1964: 18).

The decision to sell Vitasoy as a cow’s milk substitute also rubbed against prevailing popular assumptions about the consumption of fresh cow’s milk. ‘[A]mong the Chinese community, giving milk to children was considered to be a Western luxury which only the very rich could afford, and of course to these people cost was no problem’ (Lo 1964: 18). Lo attributed his early commercial failures in marketing and selling soybean milk to a misrepresentation of the product. By linking its production and distribution to the dairy industry, he had inadvertently aggravated local prejudices about who could drink cow’s milk in a fashion that compromised the popularity and profitability of his own product.

At an individual level, we can accept his characterization for what it was—a misunderstanding perhaps due to youth or inexperience of the market he sought to reach. At a more global level, however, his miscalculation signals the fault lines demonstrative of unequal configurations of power. The very modeling of soybean milk to dairy entailed operations of putatively disinterested rationality that presupposed a West that possessed not just the expertise and technology the non-West lacked, but also the right kind of bodies, the right kinds of food, and the right kinds of eating. The importance of this episode lays in its gestures toward alternate paths as well as the hegemonic ways in which a specific regime of thought, or what Ludwik Fleck (1976) called a ‘thought collective,’ constituted a new moral order for understanding Chinese food. The imperative to refashion soymilk as a cow’s milk substitute originated in the scientific elevation of cow’s milk as an essential component of the modern human diet. The initial efforts of K. S. Lo to sell Vitasoy as a poor man’s cow’s milk highlight the promise and power of partaking by proxy in the ‘power cuisine’ of nineteenth century imperialist nations (Laudan 2001). The milk bottle in which Vitasoy was first sold was not just a product of happenstance. It represented a highly potent and persuasive worldview in which health and nutrition came bottled. But as Lo and Vitasoy’s early failures demonstrate, using the milk bottle generated its own ambiguities and challenges.

There is a happy ending, if we can call it that, to this story.

**Conclusion: A Soda Bottle Solution?**

Japanese occupation of Hong Kong had temporarily halted Vitasoy operations, but with the Japanese surrender in 1945, the company reorganized its operations in the postwar period and began to market soybean milk as a soft drink (qishui 汽水) instead of as a milk substitute. The decision to repackage Vitasoy as a soft drink, instead of a milk substitute, was not taken lightly and was even initially opposed by most members of the Vitasoy board. Lo, however, pushed for the change, because he believed that the older model of equating Vitasoy with cow’s milk had exhausted its utility. The time had come, Lo argued, to expand Vitasoy’s market share by jumping aboard the growing soda industry and getting Vitasoy stocked in the many Watsons drugstores (dispensaries) cropping up in Hong Kong, as well as in local convenience shops (shiduo 士多). By 1949, daily sales were approximately 1500 cases (each case held 24 bottles) (Cai Baoqing 1990: 31). Instead of the glass milk bottle, Vitasoy adopted the curved soda bottle (Figure 5), a decision that may have also reflected the company’s contracted role (1950–57) as the primary Hong Kong distributor of the American

![Figure 5: Vitasoy soda bottle.](image-url)
orange-flavored soft drink Greenspot (Cai Baoqing 1990: 32). Packaging Vitasoy as a soft drink engendered other challenges, for which over time the company found workable solutions. For example, despite being sold as a soft drink in a clear, curved soda bottle, Vitasoy had a minimal shelflife. It had to be drunk within a day of its manufacture. For this reason, shops were initially hesitant to purchase too much stock as all unsold bottles would have to be disposed at the end of the day and taken as a loss (Cai Baoqing 1990: 30–1).

By 1963, Vitasoy had become the largest single seller in the local Hong Kong soft drink market. Lo expressed tremendous satisfaction, pointing out, ‘[T]his is no small achievement, when we are competing with such internationally known brands as Coca Cola, Pepsi Cola, and Seven Up’ (Lo 1964: 18). By the late 1960s, Vitasoy sales in Hong Kong were second only to Coca Cola, which had 25 percent of the soft drink market. The soda bottle had accomplished what the milk bottle could not.

Vitasoy's commercial success as a soft drink should not occlude considerations of its packaging history. As Hawkins (2013) has suggested in her discussion of the PET bottle, there are many ways to tell the story of the rise and impacts of food packaging. Vitasoy's milk bottle had been an attempt to reorder the economy of qualities of what Hong Kong people should eat and drink such that those activities became confluent with global discourses of science, power, and health. One drank milk, because milk was deemed resplendent with the proper forms of goodness needed to build strong bodies and vibrant societies. The milk bottle, with its attendant system of subscription-based delivery, was central to reconfiguring the value of soybean milk and imbuing social meaning to consumption. Lo’s use of the milk bottle to sell Vitasoy reflected some of the quintessential tensions defining early twentieth century China. The desires to be strong and independent, to be modern and Chinese can be discerned in this bottle, because the bottle—the glass, the system of delivery that brought glass bottles to local homes, the contents it held, the factory that produced it—was itself a sign of Chinese aspiration and Chinese modernity.

The milk bottle was not just a signifier of modernity, however. As Cochoy and Grandclément have argued, packaging has been critical to the reordering of relations between products and consumers. Soybean milk in glass milk bottles constituted a more mediated relationship than previous forms, be it the bowls at the ‘sesame cake store’ or vessels brought from home. The capping of the bottle, the pithy messages about seasonality, and the labeling included became the primary conduits for transmitting information: scientific, hygienic, corporate, and humanitarian. In other words, consumers could rely on these forms of indirect, written, or visual information to assess knowledge of what they were buying (Cochoy and Grandclément 2005: 648). The milk bottle especially was meant to communicate the scientific and cultural dimensions of milk that modern consumers were expected to recognize: its scientifically-tested nutritional composition, its cleanliness, and its industrially produced goodness. That the milk bottle ultimately failed to achieve the profits desired does not negate the powerful ways in which the materiality of the packaging expressed contemporary social valuations and impacted upon social relations. Indeed, if not the milk bottle, the next story to unravel is why the soda bottle.

Notes
1. Wei Tanai has been the Chinese name for the product since its introduction to the Hong Kong market in 1940. For various reasons, however, its English name was changed, first from ‘Vita milk’ to ‘Sunspot’ to (finally) ‘Vitasoy’ in 1953.
2. I am drawing on Marjorie Garber's analysis of Claude Lévi-Strauss’ phrase ‘good to think with’ (bonnes à penser), which places the emphasis on the phrase’s “celebration and validation of thinking” (Garber 2008: 14).
4. See, for example, entries entitled “Advice of Soybean Milk,” Hong Kong Sunday Herald, 3 September 1939 and “How to Make Soya Bean Cake” in Hong Kong Daily Press, 27 September 1939 and “Yingyanghui gongzuo baogao tixing shimin zhuyi yang gang wenti de ke shi caomi ji doumai deng wu” [Report of the Nutrition Committee recommends residents pay attention to the nutrition problem and eat more brown rice, drink soybean milk, etc.], Dagongbao, 7 February 1941.
5. P. S. Selwyn-Clarke (born Percy Selwyn Clarke in 1893) served as the Director of Medical Services, Hong Kong from 1937 until 1943.
6. The term ‘nutraceutical’ was in 1989, but the idea—certainly for Chinese society—that a food, both nutriment and food, could cure physical ailments and life’s little and large maladies predates the English portmanteau (Bowers 1998).
7. Although soybeans are legumes, they have long been considered by Chinese as one of the five staple grains (wugu 五穀).
8. Many were located in the International Settlement; at least one in the French Concession; and one in the Chinese administered parts of Shanghai.
9. Aerating water began in Shanghai in the early 1860s at the British pharmacy J. Llewellyn and Co Ltd. Soda (aka ‘Dutch water’ or 荷蘭水) and lemonade were both aerated and popular among expatriate communities and Chinese alike. By the 1890s, many other pharmacies and companies began producing their own brands. For example, the Aquarius Company specialized in making effervescent waters in 1892. Their soda waters, root beers, mineral waters, ginger ales, ginger beers, tonic waters, potassium waters, and lemonades were marketed as specialty drinks to ease various ailments
and regulate diet (Dikötter 2007, 235). For discussion of Coca Cola and nationalism, see Yao 2017.
10 Xueli is more commonly marketed as ‘Korean pears’ in the United States.
11 For a more detailed discussion of the history of cow’s milk in China, see Sabban 2014.
12 For more on the history of soda fountains, drugstores, and sodas, see Cross and Proctor (2014).
13 Greenspot’s Chinese name was Lùbāo qǐshǔi 綠寶汽水.

Competing Interests
The author has no competing interests to declare.

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