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Hypes and the birth of new sustainable market categories – a socio-cultural perspective on the emergence of the meat substitute category in Finland

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ABSTRACT
Hypes can be a significant contributor in the mainstreaming of sustainable products. Former research on hypes has been supplier oriented, and thus little is known of their effect on new market formation. Our paper contributes to this research gap by examining the establishment of the 'meat substitute' category in Finland using press articles, retailer interviews and consumer panel data. We show how the emergence and legitimation of the meat substitute category depended heavily on the hype arising around a single product, called Pulled Oats (PO). This hype was anchored in its association with trendy and socio-culturally relevant values and practices. We further discover that the hype had positive spill-over effects on other novel meat substitute products but not on longstanding vegetarian protein sources such as tofu or tempeh. We discuss the contribution of these findings to the literature on hypes and sustainability transitions, especially regarding socially constructed market boundaries and the fact that the hype on PO lacked a disappointment phase typical of hype cycles.

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Hype; sustainability transitions; market categories; meat substitutes

1. Introduction

In recent decades, aggravating environmental problems such as climate change and mass extinction have called for a change in the way products are consumed and produced. The literature on sustainability transitions studies this transformation with the aim 'to conceptualize and explain how radical changes can occur in the way societal functions are fulfilled' (Köhler et al. 2019, 2). One important pathway to enable transitions is hype, which is defined as 'an upsurge of public attention and high rising expectations about the potential of the innovation' (Ruef and Markard 2010, 317). A hype can quickly fire up the demand for a sustainable product and create a bandwagon effect which draws many similar products from niches to regime (Geels 2005; Ruef and Markard 2010).

The consequences of hypes have been studied widely in transition literature. However, former research has taken primarily a supplier and technology-centric perspective on this issue, focusing on innovation activities, regulation, and public funding (Bakker and Budde 2012; Budde, Alkemade, and Hekkert 2015; Ruef and Markard 2010; Verbong, Geels, and Raven 2008). Little attention has been paid to the new market formation even though this has been identified as a key process in transforming regimes (Boon, Edler, and Robinson 2020; Dewald and Truffer 2012). To address this research gap, we examine *how hypes can enable the creation of new sustainable market categories*.

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Our study examines the launch and establishment of a novel plant-based protein product in Finland called Pulled Oats (henceforth PO), which conceived a whole new category of meat substitutes for the Finnish markets. We focus on the media hype that emerged around PO. Additionally, we collect interviews from food retailers to track the creation of an established market category and we support our findings with panel data on consumer purchases. The context of our study is well suited for answering our research question. Regimes are seldom transformed through technological developments in the food industry because breakthroughs rarely happen in this context (Tziva et al. 2020). This emphasises the need to focus on market formation as a key mechanism for unlocking transition in the sector.

We approach our research question using the theory on market categorisation, which examines how audiences come to acknowledge new products in a situation where such products do not fit well into existing classification systems, which in turn leads to meaning-making processes concerning their material and symbolic features (Durand and Khaire 2017). A market category is 'an economic exchange structure among producers and consumers that is labeled with a meaning agreed upon by the actors and audiences who use it' (Navis and Glynn 2010, 441), and market categorisation is 'a cooperative venture between organizations and their audiences, rooted in cultural understandings and expectations' (Glynn and Navis 2013, 1125). A categorisation perspective is therefore appropriate for studying the food sector, which is anchored in socio-cultural values and practices (Lonkila and Kaljonen 2022; Mylan et al. 2019; Tziva et al. 2020), and can help in understanding how contextual elements such as values, habits and traditions can be addressed in new market formation.

2. Theoretical framework

2.1. Hype and transition studies

A hype is generally characterised as an upsurge of public attention and high rising expectations concerning an innovation's potential (Borup et al. 2006; Ruef and Markard 2010). A hype constructs enthusiastic expectations of an innovation's future, adding considerable momentum to the innovation development process, attracting funding, increasing innovation activity, and press attention (Bakker and Budde 2012; Budde, Alkemade, and Hekkert 2015; van Lente, Spitters, and Peine 2013). Hype works in cycles, which are usually characterised by three different stages (O'Leary 2008; van Lente, Spitters, and Peine 2013). The first stage is the peak of inflated expectations. In this phase, an innovation, usually a form of technology, gains mushrooming media attention based on unrealistic expectations of its impacts, leading to increased innovation activities (Budde, Alkemade, and Hekkert 2015). This stage is followed by a trough of disillusionment, which is characterised by disappointment in the innovation's inability to deliver on the set expectations, further leading to a rapid slump in media attention and innovation activities (Verbong, Geels, and Raven 2008). This disappointment can result in to two different outcomes: either the disillusionment leads to the scattering of innovation activities (Verbong, Geels, and Raven 2008), or the innovation activities are continued by a group of actors, with the media reporting more realistic expectations of the future of the technology (Ruef and Markard 2010).

For transition studies, hypes are relevant because they can create windows of opportunity for niche actors to break into the regime (Geels 2005; Verbong, Geels, and Raven 2008). Even though the disappointment in the hyped innovation can lead to decreased public support and press attention, hypes can have permanent positive effects, which can mainstream sustainable products and services. For example, they can increase legitimacy and spur innovation activities if the supporting institutional structures can be created during the hype and if the innovation can deliver some of the inflated promises in the longer term (Ruef and Markard 2010).

Literature on hypes has assiduously described the consequences of hypes on supplier-side activities such as innovation undertakings, public funding, and regulation (Bakker and Budde 2012; Budde, Alkemade, and Hekkert 2015; Ruef and Markard 2010; Verbong, Geels, and Raven 2008). However,

the effects on market formation have been overlooked, which represents a gap in the research. Market formation is a key process in enabling products to move from niche to regime (Boon, Edler, and Robinson 2020) and it can be a very arduous process for the producers (Dewald and Truffer 2012). Hypes have been shown to lead to increasing consumer demand that can remain stable even after the trough of disappointment (Geels, Pieters, and Snelders 2007). Thus, they can take care of some parts of the market creation process. We therefore here examine the formation of markets using theory on market categorisation, which will be elaborated on in the next section.

2.2. Market categorisation and food markets

Categories are used to create common logic in the social world by means of classifying items. Categories facilitate the comprehension and handling of large quantities of information because they allow people to focus only on certain features of an object (Rosch and Lloyd 1978). Market categories are socially constructed classifications that enable the evaluation of products and services (Navis and Glynn 2010) and create expectations on their appearance and characteristics (Granqvist and Siltaoja 2020). Thus, they are meaning making structures that enable commerce because consumers know what to expect of products and services and allow them to identify producers associated with each category (Vergne and Wry 2014).

Categorisation literature has been dominated by the categorical imperative perspective (Vergne and Wry 2014). According to this view, categories form around the so-called prototype products. Prototypes serve as critical reference points that define salient characteristics other products must mimic to signal membership in a category (Rosch and Lloyd 1978). Products that do not present these characteristics suffer from a lower valuation by category audiences or are even excluded from a category entirely (Zuckerman 1999). However, many scholars have suggested that categorisation processes are more complex for emerging categories. Nascent categories' boundaries, that define the relevant characteristics and meanings required for category membership (Lamont and Molnár 2002) are unclear or in flux (Granqvist, Grodal, and Woolley 2013). Accordingly, the category has undefined criteria for membership and it lacks the prototype against which to sort, classify and assign meaning (Glynn and Navis 2013). The boundaries are essential for producers because they determine, what and who are included in the category, thus determining the access to resources (Grodal 2018).

In the emergence phase of a category, the producers tend to feature their products with different labels, to test which one 'sticks' with the audiences (Siltaoja et al. 2020). Category labels associate products with explicit and implicit meanings (Granqvist, Grodal, and Woolley 2013). For example, a producer that labels a food item as a 'meat substitute' instead of 'vegetarian protein' conveys a different meaning for both its explicit usage purpose and implicit values that its usage represents. Usually, when searching for suitable labels, producers seek connectedness with desirable customs, lifestyles, habits, and values in the context in which the category emerges. In this type of goal-oriented categorisation, category's meaning is derived not solely from consensus over prototypical features but from the values and practices associated with it (Delmestri and Greenwood 2016; Khaire and Wadhwani 2010), which anchor categories to their context (Glynn and Navis 2013).

Both prototypical and goal-oriented categorisation play important roles in food categorisation (Granqvist and Ritvala 2016). Prototypical categorisation draws attention to the features that address the similarity of the food products (e.g. tenderloin and ground meat are both beef) and goal-orientation addresses the goal and context of the food use (e.g. tenderloin is served as festive food whereas ground meat is usually not) (Ross and Murphy 1999). Additionally, socio-cultural contexts and practices strongly influence the formation of food categories (Delmestri and Greenwood 2016; Lonkila and Kaljonen 2022; Mylan et al. 2019). For example, whereas pork is everyday food in some cultures, in others it is illegitimate. Therefore, market categorisation extends well to the study of our case because it examines the audience meanings when observing categorical boundaries.

We next present the hype around PO as our research context and how we mobilise category theory to examine it.

3. Methodology

3.1. Research setting: the launch of Pulled Oats in Finland

PO was introduced to the market through initial tasting and sample sale events held in Helsinki and other big cities in Finland at the turn of the year 2016. The sample lots sold like hotcakes, demonstrated by the January tasting event in Stockmann Herkku, a high-end grocery store in Helsinki, which sold out in 11 min (Vasama 2016). This took the founders completely by surprise because they did not believe in PO's success in Finland, and thus the tasting events were mainly meant to get consumer feedback for further product development (Ålandsbanken 2017). The success at Stockmann was the start of the hype around the product. PO required a new kind of manufacturing machinery and ramping up the production took time (Kivelä, Simonen, and Heikkilä 2020). Thus, the hype created a situation in which supply could not meet the rapidly increasing demand. The interest was so high that people established Facebook groups (e.g. Pulled Oats radar group with 1500 members in early 2017), in which they notified each other of the product availability in different stores (Kivelä, Simonen, and Heikkilä 2020).

Following the success of PO, other products also labelled as meat substitutes came onto the market: Härkis, based on pea and broad beans and milk-based MiFu were both launched in September 2016 (Mustonen 2016; Schäfer 2017). PO and Härkis were both developed by small start-up firms (Gold&Green Foods and Verso Foods), whereas Mifu was conceived by Valio, an established Finnish milk product corporation.

The launch of PO provides an excellent context for answering our research question regarding new sustainable market category creation for three reasons. Firstly, Pulled Oats is a vegan product of which the main ingredients are oats, pea protein, and broad bean protein, all of which can be cultivated in Finland, making it a reasonably environmentally friendly product. Secondly, the hype around the product is quite clear. The attention around the product peaked quickly and the discourse on it was characterised by inflated promises that are typical of hype cycles (van Lente, Spitters, and Peine 2013). Thirdly, as we will show in the findings section, the hype around PO led to the creation of a meat substitutes category in Finland.

3.2. Data collection

Our data consist of press articles, interviews with food retail managers, and consumer panel data. The data sources are described in Table 1 and more elaborately justified below.

To understand how the hype unfolded, we collected a dataset of press articles. When the press makes sense of new categories, they tend to associate them with societally relevant trends, challenges, and values and promote user experimentation that embeds emerging categories in practices (Siltaoja et al. 2020). The press produces the stories embedded with the hyped products'

Table 1. The data sources.

Type of data	Amount of data	Purpose
Press articles	132 articles from Helsingin Sanomat (the predominant newspaper in Finland)	To explain and demonstrate how the hype developed
Interviews	12 Interviews with retail managers	To demonstrate how the hype led to the creation of a new category
Consumer data	The consumer panel data for the category 'meatless protein products' 6.12.2015–4.3.2018 and for the 'meat substitutes' 16.9.2018–15.8.2021	To confirm the hype and the creation of an established category

expectations, and therefore is a focal actor in the creation of hype cycles (Ruef and Markard 2010; van Lente, Spitters, and Peine 2013).

We collected the press dataset from Helsingin Sanomat, which, measured by its circulation, is by far the largest newspaper in Finland. Therefore, it is a good proxy of the hype discourses. We collected all articles concerning Pulled Oats from Helsingin Sanomat, starting from the launch of the product (January 2016) and ending when the hype's peak had passed (June 2017). The search word nyhtökaur*, Finnish for 'pulled oat*', revealed 132 different articles, news pieces, columns, opinions, recipes, and other stories.

To understand the effects of hype on the categorisation, we also interviewed 12 retail managers. Food retailers have become the dominant players in the food supply chain, acting as gatekeepers in the industry and deciding on the food categories that are displayed to the consumers (Bjorkroth et al. 2012). The interviews were conducted between February and June 2017, when the peak of the hype had passed, and its repercussions could be seen. We used two qualifiers to choose the interviewees: they had to have Pulled Oats on sale in their store, and they had to work at a managerial level.

Ten of the interviewed people were a part of the largest retail groups Kesko and S-Group. These groups cover more than 80% of the Finnish grocery retail market (Finnish Grocery Trade Association 2019), and thus are at a near oligopoly situation. This makes Finland an excellent location for studying food categorisation because it is possible to capture most of it by examining just these two large chains. However, we also studied two smaller retailers to ensure that we were not missing essential categorisation dynamics.

Finally, we utilised data on consumer purchases to confirm our findings. The market measurement company, Nielsen IQ, granted us two panel datasets on consumer purchases: one on the category of 'meatless protein products' from 2015 to 2018 and another on 'meat substitutes' from 2018 to 2021. These data are based on a NielsenIQ consumer panel where a sample of 5000 Finnish households collect all their in-home purchases using electronic scanners. The data are then projected to represent Finnish households. These datasets helped us confirm our findings regarding the hype and the creation of a category.

Unlike many previous studies (Bakker and Budde 2012; Budde, Alkemade, and Hekkert 2015), we did not collect primary data from the producers. While this limits theorisation on how the producers changed their own categorisation practices during the hype, it allows us to focus on the largely neglected consequences of hypes in the demand side. In addition, we examined the intentions and strategies of the meat substitute producers in different times using secondary materials (Ålandsbanken 2017; Kivelä, Simonen, and Heikkilä 2020; Lonkila and Kaljonen 2022; Vasama 2016) to gain a more holistic picture of our case.

3.3. Data analysis

The analysis progressed in two phases. In the first phase, we observed how PO was categorised by the media and by the retail managers. We approached the data inductively without assuming any causal mechanisms. Therefore, at this point, we observed the datasets separately and focused on making sense and describing how different audiences perceived the novel product, which did not have an existing frame of reference.

We tracked the categorisation in four ways. Firstly, we mapped the concrete descriptions used to describe PO (e.g. 'meat substitute') to understand what was perceived to be the primary categorical label. Secondly, we mapped values and practices associated with the product, (e.g. how the product was 'easy-to-use' or that it was part of an Asian cooking recipe). Thirdly, we mapped what PO was compared with (e.g. pulled pork or chicken). This information was essential to understand what was perceived as the primary frame of reference to make sense of the product. Fourthly, we examined how PO was familiarised and narrated to audiences by using stories. These included analogies

and meanings that loaded many expectations for its future but also conventionalising stories that familiarised its usage in households.

In the second phase of analysis, we tracked the categorisation over time across the different data sources. We examined how the creation of a new meat substitute category can be seen in the different sources of data, which products are perceived to be part of this category and why. We also triangulated the different data sources to understand the nature of the hype and its consequences. We noticed that the hype pattern can be observed in different sources of data; it is embedded in socio-cultural values and practices; and it has indeed led to the creation of a stable meat substitute category. We now elaborate on this in our Findings section.

4. Findings

4.1. The hype around PO

At the beginning of 2016, Pulled Oats still received scant press attention, but it mushroomed towards the end of the year. This is illustrated in Figure 1, which depicts a pattern in press attention typical of hypes: rapid growth in reporting followed by a sudden drop in interest.

Both the retailer interviews and the press data indicate that the hype was anchored on associations with many values that were considered positive in the Finnish socio-cultural context:

> Pulled oats is actually the dream product of today. It is a university-born innovation with global markets. Simultaneously, it is the answer to the everyday hustle and bustle, environmental degradation, and worry about the global food supply … People pile up vegetarian protein on their plates – or insects, but eating them is not easy. Oats, on the other hand, are familiar. (HS Editorial 13.1.2016)

> The timing [of the launch of Pulled Oats] was perfect. The product fits the vegetarian boom because it is vegetarian protein, ethical, and ecological. Also [the fact that it is made of] oats is important, and [foodstuffs that are high in] protein is a trend. Additionally, the ease [of cooking] … and boom! (Store manager)

As illustrated in Table 2, both the press and the retail actors emphasised that the hype emerged from PO's association with many socio-culturally relevant values. PO was both old and new; it was a novel,

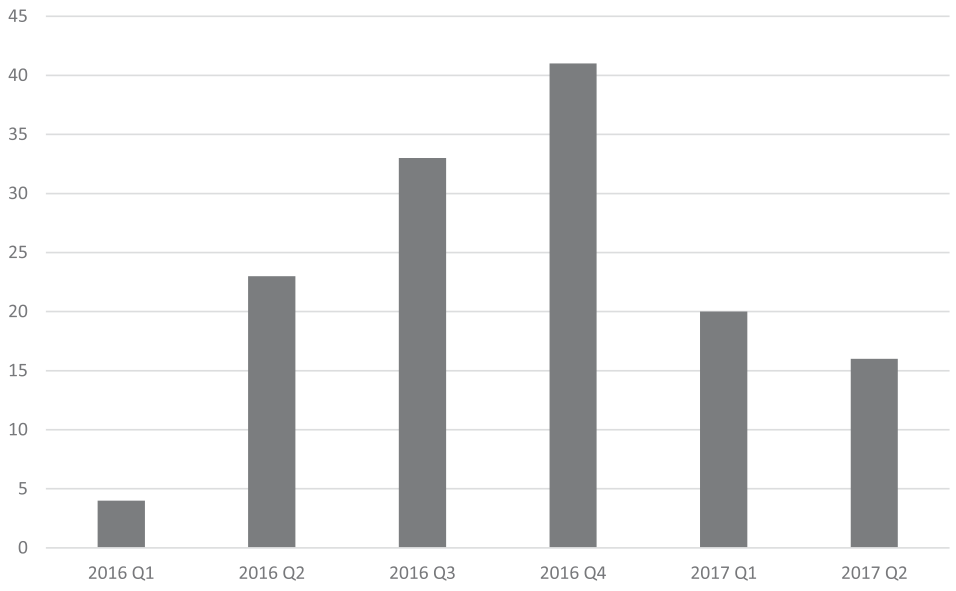

Figure 1. The number of articles on PO in Helsingin Sanomat per quarter.

Table 2. The socio-cultural values of the pulled oats hype.

Sustainability	At the same time, [Pulled Oats] is an answer to the concern about climate change, the environment, and the planet's food supply. Meat consumption is growing unsustainably alongside the economic growth of China and other developing countries. (Vasama, May 1, 2016)
Finnish product	'… sometimes it feels like Pulled Oats is Finland's own Pokémon that has been hunted like crazy', says Maija Itkonen, the CEO of the company Gold&Green Foods that is behind the product. (Sneck, July 28, 2016)
Easiness	Using Pulled Oats was very easy. It only needs mixing with hot sauce and warming up. (Leminen, May 7, 2016)
Rich in protein	'In Finland, the boom for products substituting meat was kicked off by Pulled Oats, a product that entered the market earlier this year. It has similar features to Härkis and MiFu but the protein concentration is approximately twofold'. (Nalbantoglu, August 26, 2016)
Safety and familiarity	'"People want to eat vegetables instead of meat. They want something that is quick and easy to cook and that fits everyone's taste", says Kivelä. In stores, you can find tofu made from foreign soy, seitan made from wheat gluten, or Quorn manufactured from industrially-grown mushroom protein and egg. However, Kivelä has the trump card: Finnish oats'. (Kallionpää, January 12, 2016)

innovative product that resonated with the zeitgeist. On the other hand, the product was perceived as safe because it was domestic and made of oats.

The product's novelty and traditionality is also present in the food recipes presented in the media. Recipes included traditional Finnish dishes, replacing meat with the use of PO, but also trendy recipes (e.g. Asian cooking), promoted by known food editors. Thus, the press outlined how the product fits both with existing cultural meal preparation habits but also created a narrative that appeals to people wanting to try out new food trends. This emphasises the goal-driven nature of PO categorisation because the recipes embedded the product in people's cooking practices.

> According to Jallinoja, the change will first be visible in everyday meals that are quickly prepared. Pulled Oats and beans will displace the weeknight ground meat and stir-fried chicken more easily than the Christmas ham. 'And from the ecological viewpoint it's the weekday meals that matter the most'. (Pelli, 7.11.2016)

Even though meat substitutes had existed mainly in the central European markets for a long time, these products were largely bypassed and PO was declared as an entirely new type of product. This highlights the socially constructed nature of food hypes and innovations – products do not automatically reach audiences, but their value needs to be translated into the socio-cultural context.

Interestingly, the taste and aesthetics of PO were seldom praised – its taste was described as mild and its appearance as dubious. Despite these less than flattering terms, the press characterised PO with hyperbolic narratives that outlined its positive future.

> This year in Finland this greyish-brown ground thing has become a mythic foodstuff, sought from shop to shop by consumers foaming at the mouth. Pulled Oats is like ambrosia from ancient Greece, food reserved for the gods that mere mortals can only nibble in their dreams. (Liimatainen, HS 17.9.2016).

The positive stories drew from analogies such as 'the new Nokia', a commonly used metaphor in the Finnish press to describe a product that is expected to be focal for the national economic growth. In addition to the expectations concerning its commercial success, PO was framed to have a major positive environmental impact. For example, an article published on May 1, 2016, asks whether '[Pulled Oats] is the new ground meat and the savior of the climate'.

4.2. The effect of the hype on the creation of the meat substitute category

The initial PO production facilities were not prepared for its immense popularity and therefore the stores could only respond to a small fraction of the demand. This problem created frustration in the retail sector, as illustrated by a quote from a store manager when asked what kind of a product PO is:

> 'It's crap, but let me explain. The reason I said that has nothing to do with its taste or structure but with the huge demand … Each week we get a small amount of PO, which only satisfies maybe five to ten per cent of the demand'. (Store manager)

The store managers struggled with categorising PO. The two major grocery chains – Kesko and S-group – provide their stores with maps of the shelves with the location of the various products. The groups' chain management tries to anticipate future food trends and advise the stores on how consumers perceive the products. In the store environment, category management is done as a top-down practice, meaning that the store owners do not have a lot of leeway in placing the products or developing systems of their own. In the case of Pulled Oats, the instructions in both large retail chains were either non-existent or incomplete.

> You rarely get such a novel product that you haven't the slightest idea where it belongs. When you have such an innovative product [as Pulled Oats], which doesn't belong to any category, you have to experiment. (Retail director)

In the store environment, this confusion led to a situation where PO was sometimes placed next to ground meat and sometimes in a separate cooling unit. And because it was hard for stores to anticipate its availability, category management was not systematic. However, it is noteworthy that PO was usually not placed with the established vegetable protein products such as tofu or tempeh. The retail managers noticed that something had changed in consumer preferences, and a new category was needed to accommodate these needs. In the stores, PO began to be placed with other products labelled as 'meat substitutes', including other protein-rich vegetarian products that came on the market shortly after the PO launch. One of the most popular ones, Härkis, worked as a replacement product for customers looking for Pulled Oats but failing to find it.

> … when you couldn't get Pulled Oats, the demand for Härkis was really high, and we couldn't keep up [with the demand] even though [the producer of Härkis] could supply as much as we ordered. But you notice that the sales of Härkis has declined now that the supply problems of Pulled Oats are over. (Store manager).

A similar pattern of reference points for PO can be seen in the press data described in Table 3. PO is primarily compared with meat followed by other new products labelled as meat substitutes. Additionally, comparisons of PO with meat and other meat substitutes communicated their similarity, whereas the comparisons with established vegan and vegetarian products such as tofu and soy products were used to communicate contrast, in other words, the PO's novelty.

The new meat substitute category with PO as a prototype product can also be seen in the consumer panel data, which are presented in Figure 2. The demand for PO rises rapidly and is quickly followed by Härkis and Mifu, which surpass PO's demand because of the difficulties in ramping up the production. Tofu and tempeh products, which are not perceived as belonging to the same

Table 3. The products that PO was compared with in the media data.

Comparison	Frequency
Meat	30
Overcooked, pulled meat (beef or pork)	12
Chicken	8
Ground meat	7
Other	3
Novel meat subsitutes	28
Härkis	23
MiFu	4
Oumph[a]	1
Older sources of vegetarian protein	25
Soy products	7
Tofu	5
Legumes	5
Seitan	3
Tempeh	3
Quorn	2
Oat-based products	5
Other	6

[a]A Swedish soy-based product which had been introduced in 2015 and was on the Finnish market in summer 2016.

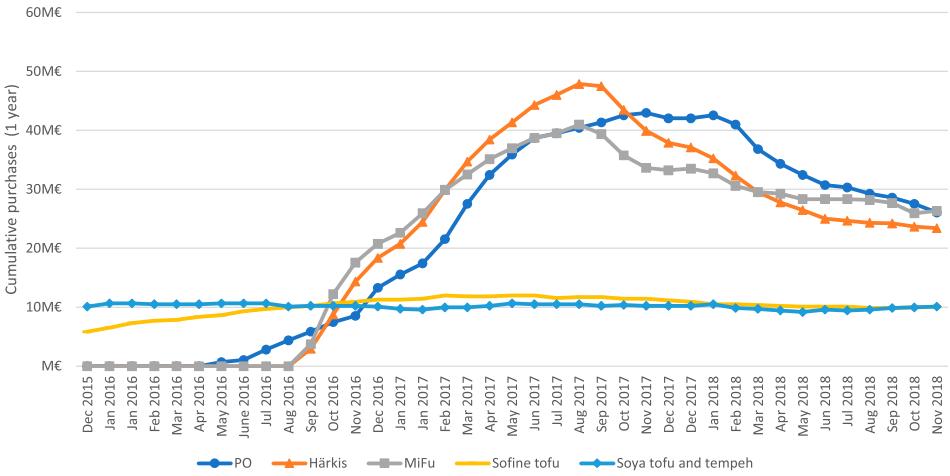

Figure 2. The consumer panel data for the vegetarian protein products. (NielsenIQ Homescan 52w ending 4.3.2018, value purchases of top five brands (€), Chopped and pulled vegetarian protein).

Note: The measurement is done every four weeks. Thus, for some months, there are two data points. For example, the exact date of the first 'Jan 2016' is January 3 and for the second January 31. Each data point represents cumulative purchases over the past year. Therefore, assuming steady increase and decrease of demand, the peak of monthly purchases would take place about a half a year before the peak in this graph. For PO and the meat substitutes in general, the peak would then occur at the beginning of the year 2017 (cumulative PO purchases peak in November 2017 and meat substitute purchases in August 2017), i.e. shortly after the peak of the media attention, which takes place in the end of year 2016 (see Figure 1).

category, do not enjoy the spillover effects even though their usage in vegetarian cooking is not very different from PO. The figure also shows the typical lowering demand after the peak of the hype. However, since then, the demand for the meat substitutes products have stabilised and nowadays 5% of Finns use the product on a regular basis (Kivelä, Simonen, and Heikkilä 2020).

Despite the market entry of new products, PO remained the prototypical product of the meat substitute category, benefitting from the 'first mover' status. Thus, it defined the prototypical characteristics of the meat substitute market category.

> In a way [Pulled Oats] made a new category. We did not have a suitable category ready when we thought about which shelf to put it on. One idea was to see it as a ready-to-use vegetarian product, so we considered whether it was a convenience food. We decided that it wasn't because convenience food is something that you eat as it is from the package or after microwaving it. However, [Pulled Oats] needs to be fried in a pan … The use of the product is what we primarily consider [when categorizing]. (Retail director)

As the new category emerged, the stores started to put the meat substitutes either with the meat products or on a separate shelf. Compared with the old vegetarian protein sources, which are scattered around the stores, this was beneficial for PO because it increased its findability. The product placement has a significant effect on the demand.

> [Product placement] affects sales a lot … [Depending on the product] the increase [in demand] can be two or threefold, but it can also be twenty or thirtyfold. (Store manager)

5. Discussion

Our paper has shown how hypes concerning sustainable products can establish and legitimate new market categories. PO was characterised with values and practices, some of which were deeply anchored in the Finnish culture and others that were highly new and trendy, contributing to the creation of a hype around the product. This hype drew other producers into the market and caused the demand for the products to surge. As a result, the change in consumer preferences created confusion in the retail sector and eventually led to the founding of a new meat substitute category.

Our article demonstrates how hypes helps the market formation for novel products, especially in the processes of constructing a narrative (Ottosson, Magnusson, and Andersson 2020) and in incepting customer segments and user profiles (Dewald and Truffer 2012). Gold&Green Foods did not invest in marketing at all in the first years after the creation of PO (Kivelä, Simonen, and Heikkilä 2020). However, the enthusiastic press helped to create a persuasive narrative for it, which the producer could later utilise in its marketing (Lonkila and Kaljonen 2022). Additionally, the retail actors fostered finding the right customer segments by changing their category management practices. They created a meat substitutes product category and experimented with its placement in the stores to ensure that the potentially interested customers could easily find it. Finally, the press advanced the formation of user profiles by creating recipes for different kinds of users (e.g. conventional vs. experimental), which helped to anchor the new product in people's cooking practices.

Interestingly, our data showed no signs of significant disappointment narratives, except for the retailers not being happy with the unavailability of the product. The disappointment is not strongly visible in the demand figures either. While the demand for meat substitutes lowered somewhat after the peak of the hype, it has stabilised to a level that is approximately 5% compared to Finnish meat consumption (NielsenIQ Homescan 52w ending 15.8.2021, value purchases (€), meatless protein products.) Therefore, even though the emergence of the hype contained many similar elements to earlier hypes that have been studied (inflated promises, proliferation of producers, and rapidly increasing demand and press attention), the trough of disillusionment in the hype cycle has been mild. This is a notable deviation from previous research, which has presented disillusionment as a focal part of the hype cycle (Budde, Alkemade, and Hekkert 2015; Verbong, Geels, and Raven 2008).

We argue that the deviation of the typical hype pattern stems from two reasons. First, the inflated stories were vague (e.g. slowing down climate change or boosting the economy) and were not connected to concrete promises regarding the features of a technology or its adoption. Second, they were constructed by the media and not by the producers. Former research on hypes has focused on technology driven industries such as fuel cells (Budde, Alkemade, and Hekkert 2015; Ruef and Markard 2010) and renewable energy (Verbong, Geels, and Raven 2008), where producers have usually been active in constructing hype narratives based on concrete and measurable promises. These promises are often motivated by attempts to build actor ecosystems, which are essential for the success of complex technologies (Budde, Alkemade, and Hekkert 2015). Thus, disappointments are likely because the hype often inspires many stakeholders to invest in the technologies, which are lost if the promises are not delivered upon (Borup et al. 2006).

In consumer driven industries such as food, these kinds of disappointments are less likely because the products seldom need an ecosystem to work, and their usage can be embedded in existing practices. Hypes are still probable as these industries are characterised by passing trends and the press looking for the next game changer (Granqvist and Ritvala 2016). However, due to smaller chances of disappointment, they can work as an important pathway to bring sustainable products from niches to regime. Future research could examine whether hype patterns without the trough of disillusionment can be found in other consumer driven industries as well.

Our study also shows how new market category entrants benefit more from the hype than long-standing vegetarian protein products. The positive spill-over effects of PO hype were selective, and the increase in demand for tofu and tempeh was small or non-existent (see Figure 2). In our study, the determining factor was not the similarity (e.g. plant-based ingredients) but the purpose of the product (usage as a meat replacement). Therefore, we suggest that the hype particularly benefits novel products that are perceived as addressing goals similar to the prototype product of the emerging category.

This finding draws attention to the socially constructed nature of the market boundaries, which is weakly acknowledged in the transition literature. For example, the analysis of the much-used Technological Innovation Systems (TIS) starts from the supply side by defining the technology to be

analyzed (Bergek et al. 2008), usually leading to the identification of the focal entrepreneurial actors, which also sets the boundaries of the technological innovation system (Tziva et al. 2020). The boundaries of the markets are not evaluated separately but are assumed to be the same as those of the TIS. In sectors strongly anchored in socio-cultural contexts or for categories whose boundaries are in flux, this might be a risky simplification. As shown by our findings, increased legitimacy does not necessarily benefit all the producers of similar products. While this is probably especially relevant for the food sector, the socially-constructed nature of the market boundaries has also been observed in high-tech sectors, such as nanotechnology (Granqvist, Grodal, and Woolley 2013), suggesting that the phenomenon should be recognised more widely.

Therefore, we echo the recent call to examine the 'legitimized perceptions of market boundaries, the roles of actors, the interplay between markets, and the process character of market formation' (Boon, Edler, and Robinson 2020). As our findings show, in sectors where technological breakthroughs are rare (Tziva et al. 2020) and that are strongly shaped by socio-cultural context, it would beneficial to adopt new theoretical perspectives that are primarily consumer and not supplier oriented. In addition to the market categorisation perspective, we call for more research on consumer identities (Niinimäki 2010). For example, it might be interesting to compare the cross-country diffusion patterns and interplay of the flexitarianism consumer identity and meat substitute categories.

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