



Title	Constructing and Contesting Markets through the Market Object
Authors(s)	Finch, John, Geiger, Susi
Publication date	2011-08
Publication information	Finch, John, and Susi Geiger. "Constructing and Contesting Markets through the Market Object." Elsevier, August 2011. https://doi.org/10.1016/j.indmarman.2011.06.034 .
Publisher	Elsevier
Item record/more information	http://hdl.handle.net/10197/4967
Publisher's statement	This is the author's version of a work that was accepted for publication in Industrial Marketing Management. Changes resulting from the publishing process, such as peer review, editing, corrections, structural formatting, and other quality control mechanisms may not be reflected in this document. Changes may have been made to this work since it was submitted for publication. A definitive version was subsequently published in Industrial Marketing Management (Volume 40 Issue 6, August 2011, Pages 899–906) DOI:10.1016/j.indmarman.2011.06.034Elsevier Inc.
Publisher's version (DOI)	10.1016/j.indmarman.2011.06.034

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Constructing and Contesting Markets through the Market Object

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Research Highlights

- We investigate market actors' objectification work around marketed objects.
- Our research draws on two previously documented pharmaceutical cases.
- One market object's material connections frustrated restablizing.
- Material connections helped carve out a market space for the other market object.
- We call for a closer investigation of objects and their materiality in marketing.

Abstract

This paper focuses on the work that market actors undertake in order to stabilize and destabilize market objects. We briefly revisit Igor Ansoff's classic product-market strategy matrix to show how marketing management literature typically equates stability in markets with commodification and inertia. To escape this inertia, marketers often 'warm up' or destabilize existing market objects by changing the material bases of the object, for instance in incremental product development. But this 'warming up' invites other market actors to also question or destabilize the networks that are supposed to hold the market object in its new (market) space. We utilize archival research to trace one case each of market and product development within the pharmaceutical realm, demonstrating: first, the effort market actors put into 'cooling down' and 'warming up' market objects; second, how contested such efforts can be; and third, how the object's material attachments may limit its symbolic malleability.

Key words

othering, market studies, pharmaceuticals , product development, market development, objectification work.

1. Introduction

We are interested in how marketers stabilize and destabilize products in market spaces. Our focus is on what Çalışkan and Callon (2010, p. 5) call ‘objectification work’, by which they mean those activities that market actors undertake to simultaneously ‘make an object’ and shape the space in which they present, position and exchange this object. Objectification work envisages actors establishing what counts in a market space, what counts as being excluded from that space and so what the space looks like, and how objects and actors can relate to one another in that space. Objectification work provides a novel lens through which to study such well-established marketing activities as incremental product development, market development and repositioning as all three are instances of marketers destabilizing and then re-stabilizing a product in a market space. Rather than seeing these activities as launching a product *into* a (pre-existing) market, we consider products to be the objects of collaborations, contests and interactions in market spaces. We move the discussion on from taken-for-granted objects in pre-existing markets to objectification work with and around objects and market spaces through the presentation of two short cases from the pharmaceutical industry. The cases consider, respectively, a market development and an incremental product development, and actors’ work of constructing and contesting simultaneously the new market spaces and the objects.

Conceptually, we contribute to a broader research agenda of market studies in business-to-business marketing, of investigating market practices (Azimont & Araujo 2007, 2010; Geiger & Finch 2009; Kjellberg & Helgesson 2007; Hagberg & Kjellberg 2010; Rinallo & Golfetto 2006). Researchers contributing to market studies have drawn upon actor network theory and the sociology of translation (Callon 1998a, 1998b; Callon & Muniesa 2005; Araujo, et al.

2010). We examine the role of the market object, and actors' work in markets through the market object, in the realm of pharmaceutical marketing because of recent suggestions that "pharmaceutical company marketing communications and new product development strategies are designed to create legitimate markets for the products that *can be made* by having conditions that *can be treated* defined as medical conditions" (Brennan, et al. 2010, p. 18; original emphasis). The activities of making, treating and defining indicate central roles of the market object in constructing their own markets, and of the complex work of marketers in positioning these objects, for instance, in connection with regulators' standards and procedures. A product- or more generally object-centric view of marketing work is at the heart of much general marketing management thinking, though this dimension has largely been taken for granted by researchers. Igor Ansoff's (1957; 1965) famous matrix of product-market growth, to choose but one example from the established marketing management toolbox, equips companies with techniques to grow by means of marketing new or existing products into new or existing markets. The (implied) corollaries of Ansoff's framework are that products and markets are interdependent and inter-determining, and that it is the marketer's task to occasionally (and strategically) unsettle existing product/market arrangements.

The paper develops as follows. In order to investigate actors' objectification work in stabilizing and destabilizing product and market arrangements in the pharmaceutical realm, we start from the role of the market object in the established marketing management literature and contrast it to the way objects are considered in science and technology studies (STS)-inspired work. This is followed by a short review of recent literature in medical sociology and its inroads into the marketing domain, examining how pharmaceutical marketers' work on material objects may contribute to market making. Building on this dual conceptual basis,

we present two contrasting case studies based on secondary data. We examine the drug Sarafem and its inventor Eli Lilly's attempts at constructing a market for its treatment of premenstrual dysphoric disorder. We contrast this with the case of the drug Sancuso and its developer ProStrakan's approach of devising a new technology of application for an established drug. In the discussion, we build upon these cases and extant market studies research to elaborate on the central question of this paper, of what are the respective roles of stabilizing and de-stabilizing in marketers' object work? A conclusion summarizes the argument and encourages further empirical research in this area.

2. Stability and Movement in Marketing Work

2.1 Pacifying Market Objects

Even though it is not explicitly cast in these terms, much marketing management literature exhorts marketers to undertake stabilizing and destabilizing work around objects. The literature conceives of products (or, often more interestingly, of services) that can be bought and sold in a market space, but also of marketers periodically imbuing these 'things' with new attributes or qualities, which will in turn unsettle the spaces that marketers had carved out for them. Igor Ansoff's product-market strategy matrix, published in the *Harvard Business Review* in 1957, illustrates this thinking around businesses stabilizing and destabilizing the product/market nexus. Ansoff presented a product-market strategy, namely "a joint statement of a product line and the corresponding set of missions which the products are designed to fulfil" (p. 114). As is widely known, in Ansoff's view, if a company chooses to grow outside of its existing 'product mission', it can do so either through market development, where "a company attempts to adapt its present product line (generally with

some modification in the product characteristics) to new missions”, or through product development, a strategy which “retains the present mission and develops products that have new and different characteristics such as will improve the performance of the mission”. A further alternative is diversification, calling for “a simultaneous departure from the present product line and the present market structure”.

While Ansoff’s matrix is just one example of marketing management thinking around product/market spaces, it is worth considering its assumptions from a market studies perspective. When a company operates within its existing ‘product mission’, the market-object nexus is a stable one. Marketers have, to use Çalişkan and Callon’s (2010, p. 5) words, ‘pacified’ a market object by conceiving of and ‘packaging’ it as a discrete entity in the first place. As we will discuss in more detail below, pacifying involves ‘cutting out’ the object from what could be a backdrop of many different potential shapes and relationships. A production machine that forms part of an assembly line, for instance, needs to be delineated as an object from a range of potential interdependencies with other objects. A service such as security monitoring likewise needs to be delineated, packaged as an entity and imbued with property rights. Once transformed into a ‘thing’, marketers and their colleagues insert and settle the object into a set of competitive and cooperative relationships, for instance in relation to other products or groups of potential buyers, and these relationships in turn will contribute in determining an object’s value to make monetary exchanges possible.

Once it has settled in its existing market, the pacified object provides little ground for challenges from market actors to call any of its connections and arrangements into question – it is, so to speak, a ‘cool’ (Law & Singleton 2005) or commoditized object. The buying and selling of a security service package, for instance, will move within predictable commercial

and competitive relationships, once the broad commercial parameters are staked. Appadurai (1986, pp. 13-16) sees commodity as phase, in an object acquires a 'commodity candidacy' or becomes qualified as a commodity in sympathy with a 'commodity context' such as a market, an auction or a business relationship characterized by regular exchanges. A commodity phase is necessary for market relationships to settle down. Yet, paradoxically, while it is their task to settle things down in the first place, marketers are often not content to work only with cool, commoditized objects. Indeed, marketing management theory is replete with warnings against 'inertia' (Takayama, Watanabe and Griffy-Brown, 2002). Even in Ansoff's time, stability in markets was equated with stand-still and possible regress.¹

Webster (1988, p. 32) admonishes that "...the product is not a given but a variable to be tailored and modified in response to changing customer needs". Mattson and Johanson (2006) make a similar point in their review of the IMP group's contribution to B2B marketing research since the mid-1970s, such that: "Products are usually non-standardized, often services related to the use of the product are important, product/service packages are complex and need to be adapted to the specific characteristics of each customer. The product should be regarded as a variable, not as a given" (ibid., 266-67). So, while it is an economic necessity to have stable 'objects' that can be bought and sold, this stability leads to commodification – materials and values settled, relationships reified. Carolan (2010, p. 110) expresses this paradox in stating that "[t]he creation of 'objects' ... serves the interests of capital, where a stable, unchanging, immutable object goes hand in hand with commodification".

¹ Ansoff opened his article with a quotation from L. J. Carroll's *Through the Looking-Glass*: "If you want to get somewhere else, you must run at least twice as fast as that!"

From a market studies perspective, we interpret Ansoff's product-market matrix as an early sign-post on the actions that marketers can pursue in 'warming things up' or de-stabilizing a product/market nexus. When market actors engage in product or market development, they take a market object and, usually after some minor material changes, insert it into a new set of relationships with potential buyers, competitors and contributors. Crucially, the value of the object is not yet established in this new set of relationships, so can be contested. After destabilizing the object by detaching it from its former setting and network of relationships, part of the marketer's job will be to re-pacify or re-commodify it, often against diverging views of 'what counts' in this as yet unsettled network of connections. In our example of a security service package, the addition of remote surveillance services as a new material aspect, for instance, could bring this particular market object into a new competitive arena to include telecommunications services, who in turn will not be slow in comparing and questioning the value of some of the attributes of the new competitor object.

2.2 Market Objects as Black Boxes

The mention of 'material' changes in the preceding paragraph warrants further consideration. As Slater (2002) has pointed out, economic actors such as marketers often have a curiously agnostic relationship to the physical attributes of their market objects. Marketers regard their market objects as utterly malleable across their physical and their symbolic or cultural attributes, and often treat both sets of attributes as 'materially' the same when engaging in repositioning or product development efforts. Slater questions the malleable quality of market objects and sees the physical and symbolic in combination, as marketers and others pacify, make material or materialize a market object. At the same time and often despite this awareness of the (materialized) object being a configuration of a chosen set of (physical and

symbolic) attributes, marketers often display a surprising level of disinterest as to the attachments and relationships that this material quality invokes (Zwick & Cayla 2011). Shove and Araujo (2010) give an example of how a tin of varnish that has been improved with a 'non-drip' formula not only alters the consumption practices of potential users, but also the very relationship between product and user by redistributing competencies (in their case from user to product, or from decorator to amateur object). Yet marketers rarely think through the relational consequences of such product modifications. Thinking through this apparent contradiction of how marketers simultaneously focus on and neglect objects' materiality allows us to further delve into the question of how goods/services become market objects in the first place.

Slater (2002) argues that market objects become stable, and in his argument materialized, by acquiring the properties of a black box. By black box, Slater means "treating social objects as finalised entities with fixed boundaries that cut them off cleanly from other objects and social processes on their outside and that endow them with a taken-for-granted inside that is assumed to account for their shape and stability" (Slater 2002, p. 100). In assessing who is 'taking insides for granted', it is worthwhile following the black box idea into science and technology studies, where it formed an important part in Latour's (1987) examination of science practice. We also see the idea in recent publications drawing on actor-network theory and market studies, which dispute the finality of the black box, especially as marketers and allied professionals consider it their mission to continually unsettle markets and marketing objects (Finch & Geiger 2010).

For Latour (1987), the black box is a remarkable achievement of scientists as "a well-established fact or an unproblematic object" (p. 131). As a black box, the object both "acts as

one piece” and for the “newly convinced user it is one object, no matter how many pieces there are in it and no matter how complex the commercial system” (ibid.). This is a rich sentence, of interest for marketers as much as for scientists. First, the object comprises other objects. Objects, such as those of markets or science, acquire a quality of being materially manifest and ‘acting as one’ by recruiting and bonding allies, or as Latour terms it ‘interessement’ (of negotiating roles among those to be involved in connected and related action). Latour (1999) utilizes the example of a car to illustrate this point. For the naive user, a car acts as one object, an object that also recruits the user to fit into the role shaped for him by the car’s material arrangements. But the car, the materialized black box, is vulnerable to defection and dissolution – once the car breaks down, not only does the user become aware of all the objects within the object – gear system, brakes, engine, electronics and so forth - but also of their fragile interdependencies, and perhaps of his own role within and servitude to this network. So, second, in the passage from Latour there are ‘newly convinced users’. Part of this convincing (the ‘interessement’) may be cultural and symbolic in terms of proposing meanings, for instance in accordance with another potential black box of lifestyle or ethics, of objects standing in for and conveying other concepts such as, in the case of a car, ‘freedom’, or ‘frugality’ or ‘dependability’. Slater (2002) builds upon Latour’s analysis by dismantling the differences between the cultural or symbolic and the physical aspects of objects, both of which are for him part of the network of connections that a black box contains.

Third, Latour mentions the specific instance of a ‘complex commercial system’. In which case, the (market) object’s material identity and achievement also draws our attention to some other complementary and related entity, which nevertheless has a singular difference from our focal object, such as a particular market (Callon 1998a). The purchase and use of a car, for instance, draws upon and incorporates in its black box a network of roads, of petrol

provisions, of agreed upon rules of the road, and excludes, or leaves outside the box, other entities including production facilities, environmental questions, noise pollution and other overflows. As marketers, we can at different times in a market object's career either make sure they stay well without the black box, or at times refer to these overflows and incorporate them into the object as part of its black box, for instance, by inviting a greener environment into a hybrid car's black box.

To turn back to the question posed in Section 2.1: Do marketers understand their market objects as (pacified and materialized) commoditized givens, or as heterogeneous and relatively instable networks of (physical, cultural and symbolic) connections? Latour's explanation of how scientists develop and use black boxes suggests that similar to scientists, marketers do both. Çalışkan and Callon (2010, p. 5) describe market objects as 'pacified' because to be so, market actors, including marketers, have managed to fit the object into a set of technical and cultural relationships, competitive, productive and among users. The market object is a black box in part because others are not interested for the time being anyway in opening it up. They may also have worked upon the sets of technical and cultural relationships to adapt these in some sense to a product. Actors can now exchange the settled or pacified market object, with its instabilities captured in an orderly if provisional manner as 'overflows' (Callon 1998b). Overflows signal a secondary condition, of the hard work going into qualifying and framing a market object as a commodity and as a black box, implying that the conditions of stability cannot be resolved cleanly in terms of the object of and in itself. Slater (2002) revisits Callon's argument, using the phrase 'découpage' (p. 101), of 'cutting out a set of relationships and oppositions that are in reality continuous'.

Marketers and other actors do achieve through their collaborations and other interactions, socially and technically, market objects, which are pacified and materialized and have a commodity phase. Nevertheless, we are hesitant in labelling these as commodities for fear of drawing attention away from the equally real and present character of the objects containing within them a complex network of connections, and from the always provisional quality of this achievement. As marketers (and producers and users), we understand the market objects are always in the gaze of marketers, who typically seek to understand them as objects to be destabilized, undergoing product development, repositioning, redefining, re-associating.

2.3 The Market Object as an ‘Other’

In our empirical investigation, we examine how two companies addressed the difficult marketing problem of distinguishing new versions of their products from established ones, which remain as marketed products. Market studies research has readily established that actors move and position their products in markets, in relation to production and use, and over time, for instance with careers and second-hand versions. But what happens if over time there is more than one version of the object? When the black box is cracked open, for instance through material changes, marketers expose the complex and heterogeneous networks that held the object in place. The materialization of these objects becomes a fixed point that helps market actors settle, even temporarily, on a set of standards of, for instance, which connections count, how they are qualified and how exchange should proceed.

‘Cooling down’ and stability are therefore co-constituting; an object that is more than one at once or that remains heavily disputed is not stable and does not serve to establish standards, for instance of comparison, of exchange, of value, or of meanings. ‘Product’ or ‘market’

development implies that the new version and the old version of the object are in different (market) spaces and that it is impossible for the two to occupy the same space; yet the two versions are still linked materially: “Singularity comes not from the separateness of objects but from their ongoing, contingent connections” (Suchman 2005, p. 394). So, in such marketing tasks as market or product development, the issue for market actors becomes one of ‘othering’ the new market object from the old. Unlike de Laet and Mol’s (2000) ‘fluid object’, a Zimbabwe bush pump that gently and slowly changed shape as bits and pieces were added through ad hoc repair and modification to keep it working, a market object that moves for instance from one Ansoff quadrant to the next needs to be a visibly and clearly distinguishable object from that left behind in the ‘old’ product/market nexus. Often a producer can discontinue production and marketing of a now ‘old’ version, to make space for a new version, easing its way to becoming materialized in a market setting. But by doing so, by clearly and deliberately separating the new product version from what had been there before, marketers simultaneously re-open the networks of attachments and relationships, and with it the black box that had been the (stable) market object, for all other market actors to join back in the redefining, negotiating and qualifying of the object.

For instance, critical market commentators and intermediaries can interrogate a producer’s specific and perhaps technical claim that the new version is indeed an instance of improvement, symbolically interrogating the producer’s capacity to be innovative and creative per se. Scrutiny can raise the status of a producer’s claim (and their accountability to that claim) to that of testimony, as regulated by an advertising standards authority, which could be invited into the network to adjudicate if claims become disputed.

To summarize this review, our concern is with marketers as part of their normal work deliberately destabilizing existing market objects, for instance as through incremental product development, and observing the effects that such an opening of the black box has across the network of market actors. As discussed in this review, we expect the material quality of the object to be important in two different and contradictory ways: on the one hand, in providing the object with a level of stability or even inertia in its network of connections, thereby rendering it more onerous for the marketer to ‘other’ the new object from the old; and on the other hand, in signaling to other market actors that this object (and its materiality) is quite literally ‘open’ for renegotiation. This perspective raises issues of qualification, contest, power, ‘interessement’ and capacities to act on the part of market actors, and the stability, instability and singularity of market objects.

3. A Pill for Every Ill – Objects and Pharmaceutical Markets

This paper’s aim is to identify, through empirical examples, how market actors destabilize market objects as part of their marketing work while keeping contestations at bay and conscriptions intact. While Araujo and Kjellberg (2009) suggested that marketing research in general has shied away from exploring such issues, pharmaceutical markets prove to be particularly interesting terrains to explore this question for three reasons.

First, even though many business researchers maintain that in the pharmaceutical realm “the market waits for a new product to meet its unmet needs” (Takayama & Watanabe 2002, p. 355), medical sociology has converged in recent years upon a social constructionist perspective on the concepts of ‘illness’ and ‘health’ (Brown 1995). This perspective emphasises that medical markets are not necessarily ‘natural’, pre-given or ready-made

entities into which pharmaceutical companies launch their products, but subject to intervention and, perhaps, invention by market actors with an interest in the existence and shape of a particular market (Brennan, et al. 2010).

Second, we expect the diversity of market actors' interests to be more apparent in medical markets than in many other markets, which indicates that there could be opportunities to observe significant struggles over legitimacy of market objects and power over market networks among the market's actors. Pharmaceutical firms, the medical fraternity, third party payers, regulators, consumers, courts and patient groups all contribute actively to the existence and shaping of these markets and can form alliances to pursue their individual goals of 'interessement', worked out and negotiated among different actors, perhaps in coalitions (Conrad & Leiter 2004). Because medical markets are generally tightly regulated, such work often leaves visible and documented traces.

Third, the medical arena is one of the domains in which the 'logic of the market' (Venkatesh, et al.2006) has only quite recently become visible, expanding the potential for actors to collaborate, coalesce and confront each other over the right or not of a particular market or market object to exist. Conrad and Leiter (2004) examine four recently 'invented' markets (for Viagra, Paxil, Human Growth Hormone and In Vitro Fertilization), tracing whether these markets were on balance made through 'supply' or 'demand', and how market actors attempted to establish legitimacy for the existence of a particular version of a market. Conrad and Leiter's four accounts afford the reader a glimpse of the jostling and negotiating involved in some medical markets. However, in Conrad and Leiter's account the object – or what the market is 'for' and whose constituency it may fall in – appears to be remarkably passive, despite their acknowledgement that in some cases, such as Ritalin and Attention Deficit

Hyperactivity Disorder, the development of the cure contributed strongly to the redefinition of the disease. In what follows we build on Conrad and Leiter's approach of tracing the diverse, political and often controversial objectification work in medical markets while accounting for medical market-making through active, rather than passive, objects.

3.1 Methodological Considerations

We describe two case illustrations based on secondary and archival data as well as newspaper and medical journal articles. We selected the cases to be contrasting and complementary representations of marketers destabilizing market objects (Dubois & Gibbert 2010). The first case illustration involves 'big pharma' and a well-known and previously documented case of arguably failed market development. The market object concerned also represents a highly contested and emotive product class in which a multitude of market actors have claimed a stake over a considerable number of years. Our second case illustration represents 'small pharma', incremental product development and a less contested product category.

To reconstruct both cases, we conducted an extensive search for secondary data through analyzing the entire history of both drugs on the Food and Drugs Administration website (www.fda.gov), on business and medical databases, company records and specialized online expert websites such as www.nih.gov and www.drugs.com. Data included regulatory records, court orders, medical databases, pharmaceutical sales data, academic accounts, popular press, financial newspapers as well as web searches for blogs, online forums and social media entries. This search was conducted in such a manner as to capture the (recorded) voices of a multitude of market actors who, for the most part, would not have been accessible to primary empirical research – regulators or company voices, for instance. While we admit that these accounts may be incomplete, and that other actors may not have had a public voice

at all – especially those voices which Helgesson and Kjellberg (2005) once called ‘the sound of the silenced’ – we have made every effort to trace as many voices as possible in each case.

3.2 Case Illustration 1

The Northern Irish pharmaceutical company Warner Chilcott owns a product that could have made a market not much like anything the pharmaceutical world has seen before. The market was for a treatment of severe Premenstrual Syndrome (PMS), or Premenstrual Dysphoric Disorder (PMDD), sized at about three to eight percent of menstrual women world-wide. This product did not succeed in capturing the market it was expected to deliver on. Its history is imprinted with traces of its makers’ (ultimately failed) attempts at creating and growing this market based on the product’s success in its original market, and the role of the market object in carrying and translating this work amidst a multitude of contestations and negotiations.

The object in question is the drug SarafemTM, developed and first owned by Eli Lilly. In official accounts, this object’s market career is quickly told. Sarafem saw the public light of day in 2000 when it was launched in the US as the first drug to achieve FDA approval for treating PMDD. Despite optimistic forecasts and a sizeable promotional campaign directed at consumers, including interactive media and television advertisements, Eli Lilly did not achieve its growth targets for Sarafem. Between 2001 and 2003, sales hovered between \$30 and \$70 mio per annum. In 2003, Eli Lilly sold the brand to Galen Holdings (now Warner Chilcott) for \$295 mio (Murray-West 2002). After its patent extension expired in 2007, Teva Plc gained approval for a generic version of Sarafem as PMDD treatment. As a consequence, Warner Chilcott’s sales of Sarafem dropped by 50 percent from \$37.7 mio to 16.9 mio from

2007 to 2008 (Warner Chilcott Annual Report 2008) and have since retracted year on year. Told as a short story, Sarafem is a rather typical marketing tale of an existing product that was rebranded but never fully captured the new market it was destined for. While this failure could have a myriad of reasons, the long story bears witness of just how much work was undertaken on the object, and on the market through the object, and why this work may have been doomed for failure.

Sarafem's origins can be linked to two socio-medical developments: the consideration of hormonal effects on women's productivity and quality of life such as variations throughout the menstrual cycle or the perimenopause as a 'treatable affliction' (Caplan 2004); and the advent of the 'neurochemical self', or "the belief that variations in neurochemistry underlie variations in thought, mood and behaviour, and that these can be modulated with drugs" (Rose 2003, p. 46). Both developments heralded new market opportunities with significant growth potential for pharmaceutical companies. The position of 'treatable affliction' is disputed in feminist and political circles and described as a form of social control over women by psychiatrists (Brown 1995), but has spawned a host of new drugs for indications such as menopause or post-natal depression. The position of 'the neuro-chemical self' is associated with antidepressants such as the Selective Serotonin Reuptake Inhibitors (SSRIs), as with the first of its kind Prozac, launched by Eli Lilly in 1987. Surpassing its initial sales targets of \$70 mio annually to the tune of multi-billion annual sales peaking at \$2.6 bn in 1999 (Szegedy-Maszak, 2001), Prozac epitomized something of a cultural revolution.²

² The Prozac phenomenon has been told in numerous academic and media accounts, although this story itself could be retold as a tale of the making of a standardised object, depression.

By the late 1990s, Eli Lilly faced the loss of its Prozac patent, due to expire in mid-2001, and the threat of cheaper and equally efficient generic versions of Prozac's active ingredient, fluoxetine hydrochloride, with the loss of an estimated 90 per cent of its multi-billion annual market. Throughout the 1990s, Eli Lilly had sought approval from the US Federal Drugs Agency (FDA) for a number of other indications for fluoxetine hydrochloride, and in 2000 it was the first company to receive FDA approval and a patent extension of seven years for the use of this compound for PMDD in a rebranded but chemically identical version of Prozac called Sarafem. This approval is the tangible outcome of years of efforts by Eli Lilly helping to have PMDD recognized as a disease and as a mental, rather than physical disease.

According to Caplan (2004), Eli Lilly had brought FDA members together in a roundtable discussion in 1999 where Prozac was presented as an effective solution to PMDD. The logic being that if a solution can be presented to a problem, the problem surely must be real. Eli Lilly also had a hand in supporting mental health researchers against their gynecological counterparts in the contest over whose jurisdiction PMDD, if it were recognized as a disease, would fall into. A move to include PMDD into the World Health Organisation's *International Classification on Disease* as a 'disorder of the feminine genital tract' was eventually rejected (Figert 1996), partly based on the evidence that fluoxetine was a successful treatment.³

By mid-2000, PMDD had been given official status as a mental disease (something many women's rights groups felt deeply aggrieved with; see Caplan 2004), and a code that would allow reimbursement for any treatment sought by health insurances⁴, and Prozac, now rebranded as Sarafem and colored in a feminine pink and lavender hue, had been given a patent extension of seven years in the US by the FDA. Eli Lilly had envisaged a market and

³ Both Caplan (2004) and Greenslit (2005) provide stimulating accounts of this techno-scientific process, in which pharmaceutical companies played a considerable role.

⁴ One may wish to notice the role of these codes as market devices.

had stabilized this market's entities, including payers and regulators, ready for the launch of its rebranded drug. One of Eli Lilly's first US TV advertisements featured an exacerbated woman trying to untangle a shopping trolley from a line of others outside a supermarket, with the tag line "Think it's PMS? Think again – it could be PMDD". This and similar advertisements were aimed at recruiting the last missing connection for Sarafem to work as a black boxed market object, the user, by helping her recognize the symptoms against which Sarafem would work (and 'other' these from the 'normal' symptoms of everyday life).

As mentioned, the Prozac-Sarafem relaunch seems like a classical marketing action of rebranding and repositioning an existing product for a new market segment, consistent with Ansoff's view of a market development strategy. From a market studies perspective, the product shows two important twists to this conventional marketing tale: one, the need to stabilize the market that the product would be launched 'into' in the first place, and two, the need for the 'othering' of Prozac in order to successfully sell its feminine *alter ego* Sarafem. Eli Lilly had drawn upon fluoxetine as a potential cure to legitimize PMDD as a disease in the first place, and to give it a mental, rather than physical, focus. In other words, Prozac was instrumental in stabilizing the many complex networks that needed to be stabilized for a PMDD market to emerge. Now, however, an association with depression could potentially frighten a broad mass of premenstrual women, alienating them from this newly stabilized 'created' market. In the words of Laura Miller, Eli Lilly's marketing manager at that time:

"We asked women and physicians, and they told us that they wanted a treatment with its own identity Women do not look at their symptoms as a depression, and PMDD is not depression but a separate clinical entity. Prozac is one of the more

famous pharmaceutical trademarks and is closely associated with depression”.

(reported in Vedantam 2001).

After all its work in associating fluoxetine with the PMDD disease area, Eli Lilly needed to efface Sarafem’s links to its origins as Prozac in its marketing activities. Consumer information on Lilly’s 2001 Sarafem website read: “What is the active ingredient in Sarafem? Sarafem contains fluoxetine hydrochloride, the same active ingredient found in Prozac.” (reported in Greenslit 2005). As Greenslit indicates, this statement does not acknowledge that Sarafem and Prozac are exactly the same drugs. Indeed, so successful was the ‘othering’ of Prozac in the rebranding and marketing of Sarafem that nursing journals reported stories of double dosing of patients with Prozac by their GP and Sarafem by their gynaecologist (Karch and Karch 2002). But while at a brand level, Sarafem was clearly *not* Prozac, materially it never stepped out of the shadow of its neurochemical *alter ego*:

“Sarafem contains the same active ingredient as Prozac”. When I first heard this statement, sitting in my living room wiping the tears away after some sappy-ass mini-series, it didn’t sound so bad. I figured Sarafem must be diluted with a milder medicine, made in a lesser dose and/or taken less frequently. Certainly they wouldn’t prescribe Prozac for PMS. But it turns out that’s exactly what Eli Lilly has done. The company changed the color of the pill from green to girly pink and turned the depression-stigmatized label Prozac to the oh-so-feminine name Sarafem. Yet Sarafem/Prozac both require daily 20 mg. doses of fluoxetine hydrochloride. You don’t take Sarafem any less often. You don’t take it any smaller doses.

(www.alternet.org/module/printversion/11004)

This excerpt from a 2001 blog on AlterNet entitled “Sarafem: The Pimping of Prozac for PMS” indicates that while Eli Lilly had worked hard to create two entirely different entities for Prozac and Sarafem, the object’s transformation for its new market had not been complete. Media reports quickly judged it as a ‘marketing ploy’. Headlines included “Sarafem Nation: Renamed Prozac Targets Huge Market: Premenstrual Women” (Spartos 2000), “Renamed Prozac Fuels Women’s Health Debate” (Vedantam 2001), “Born-Again Prozac: Not Worth the Extra Cost” (Napoli 2001) and many others. And generic competitors such as Teva plc contested that the difference between Prozac and Sarafem was such that it warranted a regulatory patent extension. From a biomedical perspective, Knaapen and Weisz (2008, p. 131) concluded their historiography of PMS research by indicating that neither the cure, nor the disease for the cure, or indeed its target market, had been fully stabilized:

...the appearance of PMDD in the DSM and the medical literature has not established a distinct new psychiatric entity management by psychiatrists. Its inclusion in the DSM has not fully standardised diagnosis and drug use in daily practice... .

3.3 Case Illustration 2

This second case illustration is about ProStrakan, which is by the standards of the pharmaceuticals industry a small and specialist pharmaceutical company, based in Galashiels in the Scottish Borders and with another office in Bedminster, New Jersey. It employs around 250 people, reported an annual revenue of £79 millions in 2009 and an operating loss of £9.6 millions for the same year. The company was founded in 1995, becoming a public limited company in 2005. It lists 28 products on its web site and markets its products

internationally. ProStrakan is part of a growing movement of pharmaceuticals companies, to include Warner Chilcott, that develop markets for established drugs, often by developing novel and patented ways of administering that drug. In this case, we will focus on a drug that ProStrakan is selling in the USA, called Sancuso, which patients take to alleviate nausea after chemotherapy. The drug is administered through a transdermal patch.

ProStrakan acts in three markets simultaneously: a market that involves patients and their professional intermediaries, such as GPs, health insurance companies, and national health services; a peer-to-peer market for the in and out-licensing of drugs, in which pharmaceuticals companies exchange the rights to drugs, for instance to develop a portfolio of products in related areas of treatments, or to use other companies' marketing, sales and distribution capacities; and a market for different types of finance, to match the companies' development from start up to public limited company. The first two markets are of interest in the present paper. The case of Sancuso indicates that companies can take actions in altering and repositioning a drug and at the same time develop a market.

The active ingredient in Sancuso is Granisetron, which was developed at Beecham in the late 1980s. The drug was developed in tablet form by Genentech, which is part of Roche.

Genentech continues to market the tablet under the name Kytril and generic versions of the drug are available since it is now out of patent. Granisetron remains in the body for fairly long periods of time and the advantage of administering it by an adhesive or transdermal patch is that the drug is released slowly, with one patch being effective for five days.

ProStrakan received approval from the US Federal Drugs Agency to market Sancuso in 2008 and ProStrakan has patented the transdermal patch, which is the drug's delivery system. In

ProStrakan's annual report, the company states that it took five years to develop Sancuso, from initial informal discussions in the company to receiving approval from the US FDA. The crucial dimensions of the object in ProStrakan's marketing and sales activities are its convenience and effectiveness in administering the drug relative to the tablet form. Hence, it is easy for patients and their doctors to administer in the stressful conditions immediately after chemotherapy. ProStrakan captures this in its annual report, as being an instance of a 'patient friendly focus'. Further, as a company, and as with companies following a similar business model, ProStrakan makes much of its knowledge of the settings of patient care and designing new technologies for administering drugs rather than for developing drugs *per se*. For patients, the material dimensions of the patch seem to be an obvious improvement on existing anti-nausea regimes including Sancuso's Alter Ego Kytril:

“When the FDA announced on Monday that it had approved the first anti-nausea medication available as a patch, cancer patients and those of us who are caring for them reacted with perhaps more excitement than the news seems to deserve. Why? Not only because it offers us a new – and much-needed – option, but because it's further proof that the research community is finally taking seriously one of the most debilitating side effects of cancer treatment.... The patch, known by the brand name Sancuso, uses granisetron, an anti-emetic already in wide use in pill form both as brand name Kytril and as a generic. ...The reason Sancuso is different is that the patch allows the drug to be absorbed through the skin, so it can help patients with swallowing problems or those who have difficulty keeping their medications down.”
(www.caring.com/blogs/caring-currents/sancuso-anti-nausea-patch-for-cancer-patients#, accessed on 25th Nov 2010).

In this instance, the new material dimension of the market object (a patch rather than the existing pill) has readily translated into the desired attribute of ‘patient focus’ and recruited other market actors, both the FDA and consumers, even though clinical trials have shown no difference in the *effectiveness* of both drugs, and even though Kytril is now available in a generic version, while Sancuso is not. In stark contrast to Sarafem, the material change the drug has undergone has justified, in the eyes of all relevant market actors, the ‘othering’ of Sancuso from Kytril and its generic siblings and has stabilized a new market for the drug.

4. Discussion: (Market) Presence Depends upon (Market) Absence⁵

Engeström and Blackler (2005, 318) state that stabilization “involves separating the object from its background, giving shape to and defining the object as an identifiable entity”. Even today, after years of stagnant and falling sales, the makers of Sarafem feel the need to ‘other’ their brand from depression generally and from Prozac specifically, in order to legitimize its market – an indication that once cracked open, the black box was never successfully closed up again. As of March 2010, Warner Chilcott’s Sarafem website reads: “Although Sarafem is not a treatment for depression, it contains fluoxetine hydrochloride, the same active ingredient in some antidepressants.” This statement is followed by a lengthy (legally required) warning of the dangers of taking antidepressants, even though, as the website states, Sarafem is *neither* an anti-depressant nor treatment for depression. Similarly, but less contentiously, ProStrakan issues a warning in its statement of Patient Information, that: ‘Sancuso contains graniestron, the same medicine in Kytril. Do not take Kytril at the same time you use Sancuso ...’. But of course there are no problems in stating that Sancuso and Kytril (the tablet form) are the same treatment, but with a different means of application.

⁵ We apologise to Law and Singleton (2005, p. 342) for this paraphrasing.

Following Law and Singleton (2005), Warner Chilcott's statement indicates a 'mess', but ProStrakan's does not. Objects should allow marketers to cool contestation and negotiation, and establish standards of comparison and calculation – in other words, through the relationships that have been inbuilt, but 'hidden away' in the black box, objects should allow marketers to make and maintain markets. For objects to be cool, and to cool down the market setting, there needs to be a clean break to other objects, and there needs to be recruitment of other relevant market actors.

From an Ansoffian perspective, Sarafem is a case where market development, or inserting an existing product into a new market, has failed – maybe because the market was not large enough, or the product was not right for that particular market. From a market studies perspective, we suggest that it may have failed because the marketing actors did not or could not pacify and stabilize the object sufficiently, and in turn the object failed to stabilize the market. In its market development efforts for Sarafem, Eli Lilly was faced with a dual problem of stabilization in that both the market and the market object needed to be made distinct; the former from its 'normal' other PMS, from depressive diseases, and even from 'part of being a woman' (Sarafem website)⁶, the latter from its *alter ego* Prozac and its generic twins. At least in Europe, Lilly failed in doing either. In 2003, the European Agency for the Evaluation of Medicinal Products decreed that "PMDD is not a well-established disease entity across Europe" (cited in Knaapen & Weisz 2008) and thus rejected both the disease and its potential solution in the shape of Sarafem. In the US, while the initial othering was successful, at least in relation to the regulator (PMDD was recognized as a separate, and coded, disease), the othering of the market object in the eyes of the many of its intended users

⁶ Brennan, Eagle and Rice (2010) have recently discussed the potential societal consequences of such medicalization efforts through marketers.

and of media commentators failed. It failed because Eli Lilly's previous work in attaching PMDD to fluoxetine specifically and to depressive disorders in general now came back to haunt them in two ways. Not only did this initial attachment work make it impossible to subsequently detach the object from its progenitor Prozac and thus justify the price premium charged, this connection also 'contaminated' both the solution and the problem it was designed for. It seems that despite Eli Lilly's claims that 'PMDD wasn't depression' this association made it difficult to convince women and primary care givers to accept PMDD as a condition. Eli Lilly embarked upon a series of elaborate actions to remove Prozac's traces from Sarafem, but could not prevent the two re-entering a shared space in connection with its common physical formulation of fluoxetine.

In contrast, in our product development case, despite their common formulation of granisetron, Sancuso was a development of Kytril, or as an object, a clear developmental step. It did not need to hide its origin, but could instead point to its difference (and developmental advantage), which is a much cleaner way of distancing one object from the other through qualification, rather than obfuscation. ProStrakan was able to demonstrate the advantage of its application technology, the transdermal patch, for an established pharmaceutical formulation granisetron, and distinct from the existing market object Kytril. The material difference of the patch was sufficient to keep the tablet version of the product as an other, with the differences being, especially from a medical perspective, perhaps subjective features like convenience of use for both medics and patients, but features that were enough to recruit these important market actors. As a material element, this feature however is dependent on there being an other, Kytril, which is less convenient. Sancuso's claim of authenticity and identity refers to the other and does not hide it.

In both our cases, the materiality of the pharmaceuticals products proved to be both obdurate and complex as the companies attempted to clear a (market) space to be filled by their new offers. Eli Lilly undertook a considerable amount of work in order to communicate and translate Prozac and fluoxetine into Sarafem. It made a moral and ethical claim, authoritatively and in a regulated and scientific setting, that it could help women by articulating different benefits of Prozac. But the shared physical quality in fluoxetine proved to be an obdurate quality of their narration of materiality. The materiality of ProStrakan's Sancuso product benefitted from the combination of two well-established and stable physical technologies that were familiar to medics and to patients, and that supported Sancuso's symbolic claim of being an improved other. The general lesson that marketing researchers and practitioners may be able to draw from these two cases is that in marketing, the material quality or 'thing-ness' matters.

5. Conclusions

It is marketing's task, as Ellis et al. (2010, p. 230) recently stated, to "communicate differences", which implies that marketers are involved heavily in working with symbols, proposing new symbolizings and cultural meanings and significances of products (deemed otherwise physical entities) in social milieux to include contexts of production, exchange and uses. Slater (2002) argues that marketers combine physical and cultural or symbolic work to materialize an entity (including services) as a market object with the qualities of a black box. Hence, we can understand marketing activities as heavily involved in producing market objects, which qualify as such by being pacified and materialized. Market objects benefit from being pacified and materialized as this allows them to establish singular identities among other products, producers and users, but we know too that this risks commoditization,

of others trying to occupy that singular space, often on the basis of lower cost production (qualities which of course are physical, cultural and symbolic).

Ansoff's (1957, 1965) classic product-market matrix is based on the premise that marketers not only can create difference, by either changing aspects of the product, or inserting an existing product into a new market, but that this difference will also be significant enough to erase any traces of what has gone before. Callon and Law (2004), when talking about 'othering' in a different context, write of 'imposed amnesia'. We showed in this paper just how arduous it can be to create such 'imposed amnesia' in a market setting. Through two case illustrations from the pharmaceutical realm, we also showed that it is not always necessary or indeed possible to 'other' an object's previous identity completely. In market development, physical traces are often obvious, even if rebranding efforts are engaged to recruit a new user community at least at a symbolical level. In product development, the claim of 'new and improved' often rests on the fact that amnesia has not been imposed and that material traces are visible but supportive of marketers' symbolic or technological claims of development.

Through our comparison of cases, we also show that if taken for granted as 'black boxes', market objects are not particularly interesting. What is interesting, however, is to trace the activities, contests and negotiations that have led to an object's "for-grantedness", or, in other words, the processes which have allowed stabilization to occur in the first place. In this paper, we have presented two short cases that show how, in medical markets, both product and market development are strategies where marketers crack open the black box for profit potential, but after some reshuffling or reconfiguring of the heterogeneous networks hidden therein, are then faced with the task of closing the lid on these Pandora's boxes again.

Stabilization is never easy to achieve, especially in the face of distributed interests of often highly expert market actors, and objects themselves are often no easy means to do so. Examples are myriad, of pharmaceutical competitors contesting regulatory approvals or patent protection in court or of patient groups coalescing with or challenging commercial attempts at establishing markets, as was the case of our Sarafem example. Examples can also be of how the materiality of an object contributed to creating a market, as in the Sancuso example. What is essential, and what we want to draw market study researchers' attention toward, is that behind every market object, there is much and often highly interesting market work, and that many facets of this work remain to be explored.

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