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Innovation and experience goods: a critical appraisal of a missing dimension in innovation theory

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This paper discusses how the concept of experience goods could be integrated conceptually into innovation studies. Experience goods are distinguishable in that their value or utility cannot be determined until after they have been consumed. The concept encompasses an enormous variety of consumer goods whose value is determined largely or entirely by subjective and non-rational factors that are difficult to accommodate in the established framework of innovation theory. This theory has a strong historical orientation to manufactured goods and to technology producer goods. The paper provides some critical perspectives on the conceptual evolution of 'value' in innovation theory. It then introduces the experience goods dimension, demonstrating its potential for exploring how historical, social, cultural and economic factors combine in the construction of value-producing innovations. Drawing on the literature of marketing, consumer research, and cultural economics, various dimensions of experience as a factor in innovation are mapped onto Schumpeter's innovation typology. The paper concludes by discussing some of the implications for future research.

Introduction

Over roughly 60 years, a sophisticated body of knowledge has emerged about the relationship between innovation and socio-economic development. Most of the theory has come from evolutionary and institutional economics, the sociology and politics of science and technology and, increasingly, the behavioral, management and administrative sciences. What might now be referred to broadly as 'innovation theory' is an alloy of these elements, making it a challenge to articulate one theoretical statement that synthesizes these many ideas and perspectives. However, one of the most commonly shared themes is the creation of value, usually described as the creation of *new* value through new combinations of knowledge, resources and skills (Schumpeter, 1912; Freeman, 1994; Baumol, 2004). This results in non-trivial, qualitative changes in products and services, and in how they are produced (Nelson and Winter, 1977, 1982).

However, because 'value' can have many meanings, it is also where thematic commonality starts to break down. Economists naturally reckon new value in terms of growth or increased productivity, usually defining innovation in terms of multifactor productivity (i.e. *extra* product that could come only from new combinations of factors). On the other hand, scholars in other disciplines often define value in

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terms of satisfaction, happiness, enjoyment, quality of life, achievement, and so forth. These are difficult to reckon in terms of direct contributions to growth and productivity because they are highly subjective in nature and difficult to measure, monetize or trade in the conventional sense. Such notions have never figured prominently in mainstream theories of innovation, but many intriguing new questions are now emerging about how they might affect or even determine innovation outcomes.

Historically, the conceptual distinction between innovation and invention – which itself is not without controversy (see Ruttan, 1959; Arthur, 2007) – has yielded a basic question: How does novelty translate into innovation? Such questions have been productive because they state a theory – that novelty requires transformation of some description in order to become innovation – and they predict outcomes in terms of the practical problems of turning ideas into practice. However, some of the newer questions are of a quite different order: How is the transformation of novelty into innovation affected by the type, context and quality of the value that is being created? Such questions as these are predicated on basically the same transformational theory, but in a paradigm that co-locates growth and productivity dynamically with social behaviors, norms and practices. They also necessarily imply variables of a highly subjective nature, having to do with preferences, tastes, habits and attitudes.

This second order of question is unavoidable when considering consumer goods, which heretofore have been somewhat marginalized in innovation studies. Seminal neo-Schumpeterian economic theories of innovation were oriented initially towards producer goods and manufacturing processes, a serious limitation today in that consumer retailing is now generally reckoned to generate some 70% of gross domestic product in the Organization for Economic and Co-operation and Development (OECD) countries. Accordingly, many scholars question whether the capital goods focus still applies in a supercharged consumerist milieu.

Injecting consumers and consumerism into innovation theory has produced significant conceptual advances. However, it may also have tended to overemphasize or overstate the consumer role in innovation by assuming that the obvious engagement of consumers with highly dynamic types of products, especially technological ones, portends, in Kuhn's (1970) sense, a new exemplar of how all innovation will be organized in the future. In this paper, we propose instead that what becomes inescapable when exploring innovation in consumer goods is indicative of a key structural dimension of innovation for a wide variety of goods that has been marginalized or ignored in innovation theory. We refer here specifically to how the process of transforming ideas and inventions into innovations is motivated, shaped and constrained by the social and cultural dynamics of value; by how value in its many forms is created, communicated, exchanged and consumed in different contexts.

We focus this discussion on 'experience goods', a concept encompassing an exceptionally large class of products and services that share two key characteristics: (1) their actual value is determined *ex post* through the experience of consuming them; (2) they embody inherently intangible and subjective value criteria that span a wide spectrum of social, cultural, economic and political influences. Experience goods fit the parameters of the second order question posed above particularly well. We propose that by exploring this experience dimension, a fuller understanding will emerge of how the social and cultural dynamics of value creation operate within the innovation system.

Since the 1970s, a substantial literature on experience goods has emerged in the economic, behavioral and organizational sciences as applied mainly to the fields of marketing, advertising, consumer research and service science. The first analytical explorations of experience goods focused mainly upon the acquisition cost aspects – that the actual value to the consumer could not be determined until after the good was consumed. Subsequent explorations have focused more upon the subjective dynamics of a wide variety of products or services whose value consists of the experience itself; i.e. whose intrinsic utility is precisely the subjective experience provided to the consumer. Obvious examples include media, entertainment and life-style goods. However, many other goods have intense experience characteristics, even if they also provide more conventional forms of utility. Good examples include food products, automobiles and clothing.

The aim of this paper is to bring the subject of experience goods conceptually into the realm of innovation studies. We begin with some critical perspectives on the conceptual evolution of value in innovation theory with reference to the first and second order questions posed above. We then review the conceptual evolution of experience goods and develop a framework for exploring innovation in this context with reference to some significant ideas about how historical, social, cultural and economic factors combine in the construction of value. Drawing on the literature of marketing, consumer research and cultural economics, we map out how the experience dimension could be integrated into the analytical framework of innovation studies. We finish by discussing some of the implications for future research and some of the approaches and avenues that would advance empirical study of these phenomena.

The conceptual evolution of 'value' in innovation theory

The main historical antecedents of innovation theory as understood today are prototypical theories of human capital (e.g. List, 1841; Bernal, 1939), technological invention (e.g. Usher, 1954; Gilfillian, 1970) and, most significantly, Schumpeter's ideas about endogenous economic development through instability and change (Schumpeter, 1912, 1939, 1942). Schumpeter's theory of creative destruction is basically an explanation of the dynamics of the capitalist system, which Schumpeter perceived to be sustained by forces within the economy itself, motivated and actualized by entrepreneurs who create new economic value by combining factors of production in new ways. In *Business Cycles* (1939, p. 84), Schumpeter defines an innovation simply as 'doing things differently in the realm of economic life'; in other words, a new way of supplying, producing, distributing or organizing that cannot be resisted once it takes hold, thus inducing value-creating cycles of adjustment, emulation and new investment.

Schumpeter perceived new value almost entirely in terms of more money, which, by his definition, all innovations would induce the financial system to create (Heertje, 2006). However, he was largely indifferent as to how or where value was created. He made no necessary connection between innovation and any particular industry, much less with technology, concerning which he himself developed no explicit theory (see, for example, Scherer, 1992; Hospers, 2005; Heertje, 2006). Rather, Schumpeter's theory of innovation is contingent upon a psychological archetype, that of the entrepreneur who is predisposed to go against the trends, relentlessly promoting new combinations that culminate in economic growth.[1]

While retaining Schumpeter's core ideas, neo-Schumpeterian theories took them in a different direction, one that originally was grounded in the practical problems of post-WWII industrial reconstruction and re-orientation (OECD/Eurostat, 2005; Freeman and Soete, 2007; Gault, 2010). This led to a primary concern with technological development in conventional manufacturing industries and with the linkage between science and industry. National systems of innovation were perceived in terms of knowledge and resource inputs in the specific context of producing new technology and/or applying it to industrial products and processes (Lundvall, 1992; Nelson, 1993; Freeman and Soete, 1997; Freeman, 2004). Most of the seminal work in this vein was conceptualized strongly in terms of technological trajectories and paradigms, R&D capabilities and organizational learning (Perez, 1983; Pavitt, 1986, 1990; Dosi *et al*., 1988). In this context, new value was defined also in terms of growth, but growth was perceived as the outcome of increased knowledge and capabilities as embodied specifically in new technologies.

The resulting technology-product-process (TPP) emphasis of neo-Schumpeterian theory had three major impacts. First, it tended to focus analytical attention primarily on R&D-intensive, technology-producing industries. Second, it tended to marginalize non-technological factors in innovation, or to define them only in terms of how they contribute to technological change. Third, it largely failed to provide conceptual tools and frameworks for investigating the creation of value outside the sphere of technology, most conspicuously with regard to the service industries and cultural industries.

Since the 1980s, much scholarly work on innovation has migrated to the level of the firm (Rothwell and Zegveld, 1981; Abernathy and Clark, 1985; Porter, 1985, 1996; Teece, 1986; Utterback, 1993; Rothwell, 1994; Christensen, 1997; Afuah, 2003; Tidd *et al*., 2005). This has led to further elaboration of the role of the entrepreneur in the innovation system, particularly the ways entrepreneurial agents deal with issues of knowledge coordination and network effects (Teece and Pisano, 1994; Chesbrough, 2003; Foray, 2004; Hekkert *et al*., 2007; Sternberg, 2007; Brännback *et al*., 2008). Technological change remains the overwhelming emphasis of most of this work, the context shifting from technology policy at the jurisdictional level to technology management at the firm level.

However, from a firm strategy perspective, it becomes more difficult to separate technology from a host of other strategic factors. This has led to critical re-evaluation of the TPP framework. Stoneman (2010) argues that TPP is based on unreasonably narrow assumptions about how innovation creates value and induces growth and about which kinds of knowledge and skills contribute to innovation. He contrasts 'hard' innovation, which is the product mainly of engineering inputs, with 'soft' innovation, which encompasses the social, aesthetic, intellectual and cultural properties of goods and services. He then shows how soft innovation could be demonstrated to be at least as significant economically as hard innovation, and in many cases more so.

The inadequacies of TPP have long been obvious with regard to services (Miles *et al*., 2000; Tidd and Hull, 2003). However, TPP is problematical even in the high technology producer industries. For example, as scholars began to explore the information economy hypothesis critically, it became clear that many of the key innovations enabling the growth of high technology industries since the 1970s occurred in market or financial structures, trade regulations, procurement practices, legal measures (e.g. concerning intellectual property and inter-firm collaboration),

standards and business models (see Barras, 1990; Jaffe, 2000; Mandell, 2000; Afuah and Tucci, 2001; Baily, 2002; Chesbrough and Rosenbloom, 2002; Hawkins 2002; Boyer, 2004; Mowery *et al*., 2004; Ballon, 2007; Hawkins and Ballon, 2007; Cosh and Hughes, 2009). Accordingly, much contemporary research deals primarily with the organizational and business dynamics of innovation, abstracted from any particular technological context. Thus, for example, Sawhney *et al*., (2006) describe innovation entirely in terms of changes in how firms relate to, and create value for, customers and suppliers, making only oblique or tacit references to technological change.

Consumers as innovators

Ultimately, by positioning studies of innovation at the firm level, it is impossible to avoid consideration of how both intermediate (i.e. industrial) users and final consumers engage with the products and services that firms provide. Doing so changes the stakes when it comes to defining innovation as value creation. Schumpeter was entirely dismissive of the consumer as a factor in innovation; for Schumpeter (1912), consumption was passive and consumers were merely 'taught to consume'. Neo-Schumpeterian scholarship has never been exactly dismissive of the consumer, merely neglectful, following the paths initially laid out by Schmookler (1966) and Jewkes *et al*., (1969), whose primary focus was on the generation of demand for technology by industrial users.

Over time, an uneasy consensus emerged to the effect that, although the role of entrepreneurs is to take the lead in promoting change, supply and demand factors are highly reflexive and time sensitive, neither supply nor demand being entirely sufficient to establish or sustain an innovation (see Mowery and Rosenberg, 1979; Scherer, 1982; Walsh, 1984; Setterfield, 2002). However, it is arguable that what may hold for firms (who occupy an intermediate position in the value chain) may not hold for consumers (who, by conventional definition, constitute its termination). Thus, if the question is still somewhat open as to whether innovation *starts* with the consumer, it is even more open as to whether it *stop*s with the consumer – i.e. whether needs or wants, the classic determinants of demand, are ever truly fulfilled.

Schumpeter's indifference was countered by contemporaries who regarded both consumer behavior (the practices of acquiring and using goods and services) and consumerism (the emergence of mass consumption as a new form of social organization) to be important factors in growth. Engel (1857) established that industrial growth was linked not just to the quantity of goods consumed, but also to their variety.[2] Veblen (1899) proposed that consumption was as much symbolic as utilitarian, aimed at confirming new social hierarchies. Marshall (1920) stressed that the economy was driven by consumers striving to acquire goods of ever higher quality, which was how opportunities for innovation would open up.

Marshall's idea was developed further by Lancaster (1966a, 1966b), who, within basically a neo-classical framework, showed how supply–demand assumptions could predict production quantities but not product differentiation or variety, which he proposed was a property of the symbolic rather than the utilitarian function of goods. By this reasoning, soap would be generic, utilitarian and difficult to differentiate, whereas cleanliness would be perceived subjectively by each individual, thus opening opportunities to innovate by segmenting the market around subtle differences in product characteristics.

In his early work on industrial users of technology producer goods, von Hippel (1986, 1988) observed that, in some cases, producers and customers collaborate to create goods that go beyond customization; that customer specifications involve the supplier in novel or non-routine activities associated with innovation. This idea evolved to encompass consumer products as well, the hypothesis being that producers can gain competitive advantage by consciously and systematically exploiting how consumers interact with products in everyday use in order to keep products at the leading edge or to anticipate demand for new products (von Hippel, 1997, 2005).

Research on adoption and consumption of innovation is 'the poor relative in the field of innovation studies', eclipsed by a focus on production (Ozaki and Dodgson, 2010). However, a resurgence of interest in the role of consumerism in innovation from many scholarly perspectives has been building for some years (McMeekin *et al*., 2002). Most of this interest centers upon re-conceptualization of the relationship between supply and demand. McMeekin and Tomlinson (1998) showed that tastes can be a more important factor in household consumption than income, indicating that different social groups with different values prioritize and consume different products at different times and rates. Harkening back to Marshall, Cowan *et al*. (1997, 2004) demonstrated how complex social signals can induce consumers to deviate from consumption decisions based on utility, and how this behavior can result in waves of consumption stimulated by social feedback. Significantly in terms of our arguments below, Cowan *et al*. concluded that: (1) innovation can occur in consumption itself irrespective of any innovations in the product consumed; (2) that this innovation can be driven spontaneously by considerations of social status, aspiration, and so forth. Swann (2001) showed further how producers can innovate without changing the product by strategically leveraging changes in perception of the social status of goods that otherwise have virtually identical characteristics and functions. In the creative and cultural industries, it has been observed how consumers create new product and service paradigms through social interaction and networking that, in turn, producers may capture and exploit (Hawkins and Vickery, 2008; Napoli, 2008, 2010; Potts *et al*., 2008a, b).

A strong observation emerges from this literature to the effect that consumers can also play a direct role in the innovation process by changing their consumption behavior, most crucially by increasing the variety and intensity of their relationship with goods. Instances are described in which producers and users *co-innovate* or *co-create*, some of the innovation inputs being provided by producers (e.g. basic product or service platforms) and others by consumers (e.g. expanded functionalities, customized features, complementary products, and so forth) (Klein, 1998; Gawer and Cusumano 2002; Grabher *et al*., 2008; Potts *et al*., 2008a, b; Sundbo, 2009).

From supply and demand to engagement

Although the conceptual evolution of innovation theory as described above is certainly not sequential, a broad progression can be mapped out, occurring roughly over three phases. This is illustrated in Figure 1. In the original Schumpeterian phase, innovation was perceived as a highly cyclical process (creative destruction) that had a decidedly supply-side motivation set in motion by the entrepreneur. Innovation was embodied in the creation of new forms of enterprise. The neo-Schumpeterian phase stressed a much more systemic entrepreneurial environment involving

Figure 1. Trends in the evolution of innovation theory

coordination of public and private sector inputs and drawing attention to the reflexive nature of supply and demand. Most significantly, it located innovation almost exclusively in the context of technological change. At the present time, we might consider that theory is entering a post-Schumpeterian phase in which innovation is characterized as an emergent and adaptive phenomenon, motivated by the need of firms to diversify the range of available combinatorial factors in order to maintain competitiveness.[3] As this phase progresses, the context for innovation broadens to encompass many more non-technological factors and moves much closer to the market interface.

Thus, we can observe that thinking about the dynamics of innovation has evolved from a cyclical view, through a systemic view, to a fully dynamic view. Conceptualizations of the motivation for innovation began from a supply-side perspective, evolved into a debate about supply–demand reflexivity, and are now settling on questions of firm competitiveness and product differentiation. Beginning in the 1950s, the primary context of innovation theory shifted decisively from the creation of enterprise as such, to the creation of technology as the vehicle for enterprise transformation. There are many signs that it is now shifting back to a much broader enterprise perspective, but one that also incorporates suppliers, industrial customers and individual consumers as active agents.

This evolution corresponds to changes in thinking about how new value is defined and created. A pronounced progression can be traced from value determinations based only in the growth of investment capital, to those stressing the knowledge and capabilities required to produce growth, much of which is situated at an intermediate position in the value chain. Much current thinking would appear to be headed towards the terminus of the value chain, to the level of engagement in the sense of involving the user or consumer in product innovation to a degree that goes beyond simple acquisition and use, and certainly beyond fulfillment of utilitarian needs and wants. The remainder of this paper addresses some of the challenges this presents.

Engagement and innovation

Such notions as innovation in consumption, co-innovation and co-creation have little to do with demand-pull arguments. They appeal to theories of networking and emergence rather than of directionality, determination or timing and they imply strongly that innovation is the outcome of a continuous and systemic dialectic between consumers and producers, irrespective of whether it occurs consciously or is formally organized. However, while sympathetic to a more dialectical view, we have two concerns. First, we note that the examples of consumer–producer interaction typically used to support these hypotheses are drawn from such contexts as

social networking and lifestyle goods, where, arguably, such interaction might appear to be much more significant to innovation than it would in other contexts, or where the extent and nature of this interaction might be open to multiple interpretations.

Second, while certainly not accepting the sufficiency of supply-oriented, industry-based models of innovation, it occurs to us that they remain rather robust, predicting many kinds of outcomes fairly reliably and consistently across sectors and product groups, including experience goods. It is not clear that because these models have been slow to incorporate the engagement dimension, that they are incapable of doing so, or that the new variants will offer a radically different predictive potential.

We propose that better knowledge of how producers and consumers interact does not in itself weaken the case for an entrepreneur-centric model of innovation in the broad Schumpeterian sense. The literature on entrepreneurship does not preclude the possibility that entrepreneurs are acutely aware of social and cultural trends, or that they can respond to a variety of signals and feedbacks from both consumers and producers while still taking decisive leads in promoting and shaping new products, processes, services and markets (Casson and Wadeson, 2007; McMullen *et al*., 2007; Sarasvathy, 2008). Indeed, in a recent experimentally based study of entrepreneurship, Dew *et al*., (2011) indicate strongly that serially successful entrepreneurs adopt precisely this transformational strategy of shaping new products to fit into existing markets and networks. Thus, we see sustained merit in the arguments of Hirsch (1976), Scitovsky (1976), Leiss (1988), Lane (1991) and others to the effect that producers typically exploit the fundamental social and psychological dynamics of aspiration and expectation by giving consumers what they do not yet know they want, which is consistent in form (if not always in intent) with Schumpeter's entrepreneurial archetype.

In the following sections, we will argue that many of the social and cultural factors that become inescapable when we consider how consumer and producer interests appear to be coordinated are actually indicative of a much more fundamental step in the innovation process for most types of goods. They bridge the gap between 'latent' and 'realized' value. Experience goods provide a context in which this step is especially evident, even though little has been observed systematically about how innovation actually occurs in experience goods.

Experience goods – a blind spot in innovation theory

The intellectual roots of experience goods

The concept of experience goods originated as an extension of rational choice models in micro-economics. Philip Nelson (1970) first formalized the definition as a counterpoint to 'search' goods, whose utility or value (according to neo-classical economic theory) could be determined prior to purchase through simple price comparisons. Nelson was concerned with goods that did not meet this criterion. His original argument centered mainly on acquisition costs, noting that, because the utility of experience goods could be determined only after consumption, they entailed higher up-front risks that incurred extra costs. These costs were also typically sunk (not recoverable should the goods disappoint). Importantly, it was not claimed that these costs would reduce the propensity of consumers to purchase any particular good, only that consumption decisions for experience goods would be determined

by criteria that differed from those for search goods. Basically the exercise was an attempt to explain how consumption decisions could be influenced by acquisition costs.

The search-experience framework was soon joined by 'credence' goods (sometimes called 'post experience' goods). Darby and Karni (1973) developed this concept theoretically in the context of how markets deal with fraud through appeals to expert third parties. Credence goods are assumed to have the highest acquisition costs because they incur all of the costs of experience goods, plus the costs of third-party verification. Prescription medicine is a commonly used example – it can be obtained only through the intermediation of a health professional, who likewise must be consulted to verify its benefits.

Goods may combine search, experience and credence attributes, which may not only change over time, but may also be determined by the context and capabilities of the consumer. For example, a book has experience attributes insofar as it produces or does not produce anticipated subjective value, such as enjoyment; it has credence attributes insofar as its selection is affected by a recommendation by someone who is taken to be an authority; and it has search attributes if it can be found on a library shelf or may easily be selected according to price, format, publisher and edition. A top hat may have had clear credence attributes for a nineteenth-century gentleman, providing a reliable guide to clothing preferences, but would likely have strong experience attributes, and not necessarily all positive ones, when worn in public by a twenty-first century stylistic innocent or would-be fashion innovator. Adoption of such items as top hats is explainable in terms of Weberian categories of meaning in action (Ozaki and Dodgson, 2010) and where social conventions shape convergence in stylistic innovation (Cappetta *et al*., 2008).

The search–experience–credence triad became well established as a way to apply information economics and transaction cost theory to consumer behavior, especially with regard to goods with pronounced subjective qualities (Shapiro, 1983; Laband, 1991; Ekelund *et al*., 1995). However, these extensions of rational choice economics did not become mainstream. On the contrary, most economists continued instead to explain the economic consequences of all preferences and tastes in terms of utility maximization, taking as a methodological corollary that such factors are not subjective. Stigler and Becker (1977, p. 76) claimed that 'tastes neither change capriciously nor differ importantly between people'. By taking tastes and preferences as given, they reduced all consumption choices to rational calculation of utility in terms of income and prices in line with the epistemological precepts of microeconomics. Later, Becker (1996) addressed addiction, love and musical taste in terms of the effects of personal and social capital on an extended utility function. In thus consigning the subjective dimensions of tastes and preferences to the analytical sidelines, a clear message was sent that deeper interpretation of tastes and preferences would be the province of disciplines less rigorous, and therefore less reliable, than economics.

These rational choice explanations for experiential factors have been intractably dominant, extending even to establishing an economic rationale for public support of cultural activities, such as the performing arts. Thus, Baumol and Bowen (1966) believed that productivity in the cultural sector could never keep up with advances elsewhere in the economy, resulting in an increasing wage gap between the cultural sector and other sectors. However, as Cowan (1996) pointed out, this analysis cannot explain why the cultural sector attracts many more workers than it can support

munificently. Moreover, it does not consider the nature of productivity in cultural industries, especially innovation in distribution channels and in the creation of popular cultural forms.

Emphasizing the experience in experience goods

Although Nelson himself recognized that experience goods had inherently subjective dimensions (Nelson, 1974, 1976, 1981), knowledge about the experiential dimensions of goods has been driven more by advances in marketing and consumer research than by economics. As the concept gained prominence in consumer research, its development began to mirror more broadly based explorations of how social and cultural values are affirmed through the consumption of goods (e.g. Bourdieu 1977, 1984, 2005; Lane, 1991; Douglass and Isherwood, 1996). Most recent research in this area focuses less upon the economics of experience goods than upon the dynamics and dimensions of experience, either as an intangible factor in consumption decisions or as a good in its own right (Caru and Cova, 2007; Hjorth and Kostera, 2007; McIntyre, 2009; Hutter, 2011). The concept of experience goods as evoked today typically articulates how consumers relate to products and services and how this dimension affects consumer engagement and consumer determinations of value. Frost *et al*. (2008, p. 52) give what has become a generally accepted definition of experience goods as '…judged by the feelings they evoke rather than the functions they perform'.

In a pair of influential papers, Holbrook and Hirschman (1982) and Hirschman and Holbrook (1982) stressed the social and psychological aspects of experience by exploring how enjoyment and play are integrated into the everyday dynamics of consumption. Subsequent work in this vein has indicated that consumers actively construct value in goods through the experience of consuming them. For example, Hamilton and Thompson (2007) showed that, for goods with high experiential characteristics, value determinations were higher among consumers who had experienced a good directly than among those whose experience was vicarious. These observations are supported by other studies; for example, of how advertising plays into experience (Ford *et al*., 1990) and, more recently, of the experience dynamics of online environments (Klein, 1998; Daugherty *et al*., 2008). These are in accord with observations that the intended purpose of an experience good is not merely to satisfy a customer through the solution of a particular problem, but to create affective responses that are remembered and valued (Prahalad and Ramaswamy, 2003; Khalifa, 2004).

Pine and Gilmore (1999) observed that the value of many goods and services is determined more by the experience they provide to consumers than by any functional attributes of the goods or services consumed. They defined experience as 'events that engage individuals in a personal way' and they bypassed the transaction-oriented service encounter paradigm by proposing that the optimal experience comprises four dimensions: entertainment; education ('learning something new'); aesthetics ('indulging in the environment'); escapism ('diverging to a new self'). Accordingly, they proposed that businesses enjoy superior performance to the extent that they deliver optimal experiences to consumers. The metaphor of experience production as theatrical performance, evidenced in the book's subtitle, *Work is Theatre and Every Business a Stage*, added a new dimension to the analysis of service work as emotional labor, which Hochschild (1983) described as the 'commercialization of human feeling'.

Pine and Gilmore (1999) went as far as to propose that experience was emerging as a kind of quaternary economic sector; that much as the post-industrial economy was seen to be driven by a shift from goods to services, the economy of the twenty-first century would be driven by a shift from services to experiences. However, many scholars have pointed out that the post-industrial hypothesis was itself flawed to the extent that it often failed to consider how inextricably most tertiary activities are linked to both primary and secondary industries (see Cohen and Zysman, 1987, David and Wright, 1997; Tassey, 2004; Wright, 1990). Thus, we see little analytical additionality in the hypothesis that experience will drive a new industrial paradigm. We see much greater promise in the hypothesis that those properties of goods and services that elicit subjective responses or feelings can become structural factors in the innovation process. Market and consumer research has demonstrated for decades how such attributes may, and often must, be added to even the most utilitarian goods for purposes of competitive differentiation and elicitation of customer loyalty. Exactly how these factors may affect innovation, however, or how they may be innovations in their own right, remain open questions.

Experience goods and innovation

Most of the relatively sparse literature specifically on the innovation dynamics of experience goods draws conceptually from the literature on innovation in services. Both services and experience goods are inherently intangible, and neither conforms particularly well or consistently to the industrial paradigm of innovation in technology-intensive manufactured goods. Each benefits from technological innovation, but neither is passively induced by changes in some other predominant sector, such as manufacturing. Neither services nor experience goods originate primarily in laboratory-based R&D. Furthermore, although services and experience goods are susceptible to productivity improvements, changes in the value of either cannot always be attributed to increased productivity (Hjorth and Kostera, 2007; Sundbo and Darmer, 2008; Sundbo and Hagedorn-Rasmussen, 2008; Sundbo *et al*., 2008; Sundbo, 2009; Barcet, 2010).

However, conceptualizing experience goods mainly from a services perspective also imposes limitations. In the first place, the general characteristics of experience goods lend support to arguments that products and services are not really distinct. Some critics point out that the features traditionally invoked to distinguish services from products – lack of tactile qualities, low degree of standardization and simultaneity of production and consumption – do not actually apply to all services (Hill, 1999; Gadrey, 2000), even though a strong case can be made that services create value differently from manufactured goods (see Vargo and Lusch, 2004). Amidst this controversy, it does not always follow that experience goods are more prone to be services than they are to be products, or that one domain better expresses the nature and dynamics of experience goods than the other.

The experiential outcome of a service is defined conventionally in terms of factors contributing to customer satisfaction and loyalty. In the 1980s, Parasuraman *et al*. (1985, 1988) laid out the hugely influential service quality (SERVQUAL) framework, which triggered a substantial program of empirical research. SERVQUAL was devised in order to measure the quality of the service experience as perceived by the customer. The original assumption was that the quality of a service experience varied with the degree to which customer expectations were fulfilled by

the resolution of a problem. In other words, the intended outcome of a service encounter was to satisfy the customer in terms of a defined set of expectations. However, critics soon pointed out that it was not sufficient for firms merely to satisfy customers. Rather, they had to delight them, a highly subjective and unpredictable outcome that went far beyond satisfaction. This requirement was already well understood in such fields as tourism and hospitality management (e.g. Jensen and Hansen, 2007). In many ways, the work of Holbrook and Hirschman (1982) and Pine and Gilmore (1999), as discussed above, was seeking to generalize the principle of delight and enjoyment in the customer experience from the leisure industry context to other consumption contexts.

Clearly, the goods–services relationship is especially complex for experience goods. Even by Nelson's original definition, it is not difficult to identify experience goods that are not services by any accepted definition, but neither are they necessarily physical goods. For example, even though books are delivered to readers by service providers, it is a stretch to say that their value is embodied primarily in this service, or in the physical characteristics of the book, although certainly both dimensions contribute to the reading experience. Regardless of its physical or virtual form, however, we propose that the actual value in a book is embodied in 'what happens' to consumers when they read the book; for example, whether this experience interacts with their everyday lives or influences future consumption choices.

This 'what happens' is the crucial intangible that forms the product dimension of an experience good – that which is actually consumed over and above how it is produced and acquired. Both the physical and service dimensions play significant roles in defining the quality of this experience, but neither constitutes the experience good as such. Our contention is that understanding the 'what happens' is the key to integrating knowledge about the subjective dimensions of customer and consumer behavior coherently into theories of innovation.

Integrating experience goods into innovation theory

Reflecting its origins, the experience goods concept has been explored analytically, mainly in terms of how existing experience goods are marketed or in terms of how experiential factors influence consumer behavior. The normative contexts of this work have been concerned mainly with how to market experience goods more efficiently, or how to enhance the consumption environment; for instance, in the design of retailing, service or public relations environments (Tsai 2005; Backstrom and Johansson, 2006; Caru and Cova, 2007; Chan, 2009; Grewal *et al*., 2009).

Innovation theory sets up a fundamentally different problem that concerns how experience goods come into being in the first place (how they are invented or discovered) and how they become innovations in the sense that they result in non-trivial, qualitative change that stimulates adoption, emulation and variation. This yields a dyad of tractable inter-related questions specifically about the innovation dynamics of experience goods: How do experiences become goods? How do goods become experiences? The first question indicates the potential of innovating by transforming common human experiences into commodities – as, for example, when the experience of walking through a pristine wilderness is transformed into a packaged eco-holiday. The other indicates the potential to innovate by adding or exploiting an experiential dimension that is latent in an existing good – as, for

example, when everyday food ingredients are transformed into entertainment by TV chefs. However, both questions indicate a third possibility, that of creating entirely new experiences as goods in their own right. This possibility can be more difficult to illustrate, as it can be to accomplish, but certainly broadcast radio, motion pictures, television and virtual reality are particularly good examples of inventions that became innovations because they created entirely new and un-envisaged experiences for the consumer.

To begin unpacking the dynamics of innovation with regard to any or all of these three outcomes, we need to explore how experience creates value by engaging the consumer with the product or service over time. The explicit or implicit hypothesis in most recent discussions of experience goods is that experience is an independent variable: basically, if the experience disappoints, the good fails commercially. In Nelson's terms, this means a loss in welfare for the consumer because the acquisition costs are sunk. This raises the prospect of innovation in order to maximize the quality of the experience and minimize the risk of disappointment. Examples of innovation along this plane are not difficult to identify – for instance, warrantees, return policies and free trials.

Problematically, however, the implied corollary – that goods will fail in the market unless they induce a quality experience – is more dubious, if for no other reason than because of potentially enormous diversity in how individuals make subjective quality determinations. A high quality experience for one consumer may be a low quality experience for another. For instance, studies of the audio–visual industries have indicated that each instantiation of an experience good can create numerous small market segments (Hoskins *et al*., 1997; Caves, 2000; Guillou, 2004; Hawkins and Vickery, 2008; Michelle *et al*., 2012). These properties set up unique sets of challenges for potential innovators.

Ultimately, the more interesting way to view experience in an innovation context is as a dependent variable, in the sense that innovators can use the human capacity to have, evaluate and learn from experiences as a resource – a factor of production – which can be combined with other factors and transformed into new and/or improved goods. This idea is similar in substance to the audience commodity concept, originally proposed by Smythe (1981) and developed by Jhally and Livant (1986), Napoli (2008) and others, whereby media audiences were characterized as contributors of capital assets and work to the mass media industries. In this context, innovation can involve inducing the consumer to continue an existing experience in a different way by successfully enticing the consumer to engage over the long term with an entirely new kind of experience, thus creating a new or different production function.

Thus it is, for example, that colleagues sitting in adjacent spaces commonly communicate electronically at an actual monetary cost (for network access and terminals) when they could converse face-to-face for free. This is an innovation on many levels, signaled by a quite revolutionary change in behavior. The antecedents are extremely complex. On the one hand, there are strong supply side antecedents; the innovation would have been impossible without a massive sunk investment in science, technology, organization and plant in order to provide the infrastructure and access platforms. But on the other, the innovation actively incorporates a multitude of material and intellectual inputs from intermediaries (service providers) and consumers. This example also demonstrates how difficult it is to determine who exactly has taken the critical entrepreneurial initiatives and in what combination.

Was it the technology producers, the intermediaries who facilitate network access, or the consumers who discover the capabilities of the system and integrate them into everyday life?

We suggest that the experience dimension offers a productive way to explore this conundrum. Basically, this dimension describes how consumers become part of the innovation process as creators of value through consumption. Crucially, it does not limit this involvement to organized, coordinated or even necessarily conscious involvement; for example, by participating in design or market research or in product customization. Consumers create new value and new opportunities for the creation of value simply by consuming, which is essentially a function of many types and levels of experience. Producers and intermediaries derive opportunities for further innovation by spotting and exploiting the kinds of value that consumers create and also by providing opportunities for consumers to encounter entirely new experiences.

Constructing an experience-based innovation framework

Although the progression of innovation theory illustrated in Figure 1 does not deal explicitly with experience goods as such, plenty of resonance with the dynamics of experience goods can be found in the concepts of path dependence, increasing returns to adoption and learning. The difficulty is that innovation theory has tended to explore these concepts mainly or only from the perspective that technology is the primary source of innovation. For example, in exploring the role of social factors in technology adoption, Nelson *et al*. (2004) argue that innovation is linked to how users learn about new technologies and how, or to what degree, this knowledge generates dynamic increasing returns. They propose that some technologies have obvious merits; thus, in accordance with rational choice models, decisions to adopt will be based upon search criteria similar to those articulated by Stigler and Becker (1977). However, the merits of other technologies are either less obvious or non-obvious, their adoption determined by networking effects and feedbacks associated with the social construction of technology, which can involve many non-rational criteria.

Such arguments are very persuasive as concerns the adoption of technology, provided social factors are assumed to contribute to shaping the actual characteristics of the technology. But what about innovations that do not involve technology or in which technology plays a subordinate role? In particular, how do consumers perceive or construct value in an experience good which, by definition, has primarily non-rational characteristics, many of them likely to be perceived differently by each user? How do these value constructions generate the learning effects, feedbacks, increasing returns and lock-ins normally associated with innovations?

The extensive literature on customer value perception makes a key distinction between customer value (the value of the customer to the firm) and customer-perceived value (the value the customer perceives in the firm's offering). Customer-perceived value was originally construed as the customer's assessment of the trade-off between benefits and costs. For most consumers, however, this is a very complex calculation. Search, opportunity and learning costs are not always reflected in price, which may be inflated or deflated strategically in order to segment the market. As Swann (2009) argues, this operation is, in itself, a significant form of innovation. It is now generally accepted that customer-perceived value involves

much more than rational assessment of net benefits (see Sanchez-Fernandez and Iniesta-Bonillo, 2007; Sanchez-Fernandez *et al*., 2009; Gallarza *et al*., 2011).

The convention has been to classify non-rational factors as hedonic and the challenge has been to unpack hedonic value in order to yield a multidimensional set of value constructs that would encompass utilitarian as well as other kinds of perceived value, to relate these kinds of value to the consumer's sense of satisfaction and quality, and to tie the consumer's overall assessment of the consumption experience to intentions for future consumption (Gallarza *et al*., 2011).

Investigating how innovation occurs with regard to experiences requires a framework in which types of innovation can be mapped onto types of value for which specific experiential attributes can be articulated. To illustrate how this might work, we have compared Schumpeter's well-known typology of innovations with a typology of customer value creation adapted from a strategic marketing framework originally developed by Smith and Colgate (2007) from a comprehensive critical synthesis of current literature in customer value research. Our justification for defining innovation in Schumpeter's exact terms is simply that the current OECD definition for purposes of obtaining data on innovation performance has adopted Schumpeter's typology in its entirety (OECD/Eurostat, 2005). Schumpeter proposed five broad but individually distinct types of innovation – new products, new processes, new markets, new sources of supply and new organizational forms – which he perceived to be driven by entrepreneurs and actualized primarily by supply-side forces. His typology is not hierarchical and serves only to illustrate that new combinations may spring from many different sources. As Schumpeter disclaimed any role for the consumer in innovation, he did not imbue his types with any consumer-oriented characteristics.

Solely for purposes of discussion, we have ordered his typology according to the degree of probable immediacy with the consumer. Thus, arguably, most consumers would encounter innovation most directly in the form of new products and services. Second, many consumers would likely encounter complementary innovations in organization; for instance, in logistics and retailing (indeed, these may be inseparable from the good itself). Third, consumers may notice innovation in where products are made (e.g. a Japanese-branded product manufactured in Thailand) or in the materials used and where they are sourced (e.g. free trade coffee). Market and process innovations may be less apparent to consumers, who may be unaware of innovations in business models or marketing techniques and could well be oblivious to innovations in how the goods they consume are produced.

Put another way, innovation types towards the top of this order engage the consumer immediately in some degree of learning in order to realize any of the value contained in a new good. Those towards the bottom generally do not, or do so to a lesser extent – unless, of course, they are brought specifically to the attention of the consumer as a source of additional or even primary value (e.g. environmentally sustainable production or recycling methods). Indeed, as Schumpeter did not imply exclusivity to any of his five types, we could propose that making consumers aware of actions at any of these levels would in itself constitute an innovation. Probably the most topical example would be green products, whose commercial strategy is precisely to engage consumers with the product at every possible level, from raw materials, through manufacturing and consumption, to decommissioning. At each level, innovations not only become strategic marketing tools, but also social signals

as to how consumers should engage with goods and, crucially, what should guide their future consumption decisions.

A consumer value typology provides a rich counterpoint to Schumpeter's innovation typology. Essentially, by juxtaposing them, the subjective dimensions that Schumpeter chose explicitly to exclude are explicitly included. Very usefully, Smith and Colgate (2007) outline four distinctive types of consumer value as discernible in a broad swathe of the marketing and consumer research literature, defined in terms of how consumers perceive the value producing relationship between themselves and the products and services they procure.

In this scheme, functional value corresponds most closely to utility models that are already defined in the minds of consumers. These models embody expectations of the utility of routine price commodities (e.g. a liter of milk or gasoline) which most closely conform to Stigler's definition of search goods. Functional value is produced to the extent that goods conform to such models (i.e. they deliver exactly what the consumer has already learned to expect). Hedonic value is produced when the inherent experiential dimensions of goods are enhanced (e.g. through design, branding or retailing environments) such that emotions and feelings internal to the consumer are summoned. These tend to generate new learning routines, feedbacks and expectations. Symbolic value is created as consumers make associations between the functional and/or hedonic values of goods and various sociologically, culturally and psychologically generated meanings and references external to the consumer (e.g. associations with family members, significant events or with celebrities). Smith and Colgate (2007) also propose a cost/sacrifice category, which in their definition refers mainly to the intermediation of retailing models designed to lower transactions costs. We have retained this basic idea as transactional value, but we interpret it more broadly to refer to any form of consumer value that is produced by the transaction process itself (e.g. convenience, information provision, security, and so forth; see also Bakos, 1997; Hawkins and Verhoest, 2002; Bouwman *et al*., 2003).

Otherwise, our adaptation differs from Smith and Colgate (2007) mainly in that they associate experience exclusively with hedonic value types. Instead, based upon our arguments above, we propose that from the standpoint of generating opportunities to innovate, consumer value is related to the intensity of experience provided by a good as determined by the degree of engagement it elicits from the consumer, potentially at several levels. In our framework, functional and to some extent transactional value has a pronounced search bias in that value expectations are already established and to some extent normative. Towards the other extreme, hedonic and symbolic values have the most pronounced engagement bias in that the consumer is fully involved with the good at a social and/or personal level.

Figure 2 expresses these relationships in a matrix on which examples of experience goods can be parsed and mapped to show how different perceptions of value have been, or could be, mobilized in producing innovations. In some cases, innovations may be confined to only one or two of Schumpeter's types and in others may involve all of them. Likewise, consumer value in different innovations may be widely spread over the matrix or tightly clustered. Gaps may indicate innovation opportunities.

To show how various innovation-value narratives could be constructed in this framework, we produce just two of many possible examples. Figure 3 maps out such a narrative with regard to a cinematic motion picture. We could consider this a pure experience good in that it conforms in virtually every way to Nelson's original

	Functional	Transactional	Hedonic	Symbolic
Product				
Organization				
Supply				
Market				
Process				
	Search bias <==========> Engagement bias			

Experience intensity

Figure 2. Matrix of innovation and value creation typologies

	Functional	Transactional	Hedonic	Symbolic
Product	Provide recreation, entertainment, leisure	Venue – e.g. multiplex, art house, home entertainment center, festivals	Content – e.g. subject, story, visuals, music	Social and cultural references, lifestyles, celebrity identification, etc.
Organization	Venue proximity and amenities, release timing, advertising and information	Internet interfaces – e.g. Netflix or iTunes	Production franchises or serialization – e.g. Bond and Harry Potter	Associations with content genres and production styles – emergence of subcultures
Supply	French new wave, Hong Kong martial arts, Bollywood, etc.	Overcoming language barriers – overdubbing, subtitling	Exposure to the exotic	Status associations – *avant garde* values, experimentation, sophistication, intellectualism and tolerance
Market	Movie merchandising – DVDs, toys, games, etc.	Theme parks, studio brands and outlets	Eliciting memories and recollecting emotions	Formation of communities – e.g. memorabilia collectors and Trekkies
Process	HD, CGA/CGI, SFX, 3D	Technology superstores	Sensory perceptions	Identification with tech-savvy, progress
	Search bias <==========> Engagement bias			

Experience intensity

Figure 3. Value-innovation map for a pure experience good (motion pictures)

experience goods concept and to its subsequent evolution. It also embodies examples of all three types of experience innovation, beginning with its origins as an entirely new experience for which consumers had no a priori model or set of expectations. Figure 4 extends this operation to what we could call a mixed good, one whose value determination is subject to pronounced experience characteristics, but that otherwise is a conventional manufactured product that also fits very comfortably into the established TPP framework. In this case, we refer to a motor vehicle that utilizes alternative energy.

	Functional	Transactional	Hedonic	Symbolic
Product	Provide transport	Dealer networks	Freedom and independence	I care about the environment
Organization	Parts, service, fuel availability	Battery replacement centers, public power points	Feeling of security	I am part of the solution not the problem
Supply	China exports first affordable mass-market green vehicle	International technical and safety standards	The satisfaction of a 'good deal'	I believe that energy/environment solutions are global
Market	Alternative ownership/use models	Pay per use rental facilities and city-car schemes	Carefree – no service or repair concerns	I am willing to cooperate in developing transport solutions
Process	New battery technology	Battery recycling or safe disposal	Guilt reduction – I can reduce CO_2 and still drive	My vehicle choice contributes to progress and innovation
	Search bias <==========> Engagement bias			

Experience intensity

Figure 4. Value-innovation map for a mixed industrial good (green vehicle)

By comparing Figures 3 and 4, however, it becomes clear that the primary difference in the value structure of each good is the nature of the good itself, one being essentially intangible and the other essentially tangible. Otherwise, a full and very similar spectrum of value perception or construction is evident in both examples. Reading from left to right, it is clear that each of Schumpeter's innovation types can be expressed in an example of each type of consumer value creation. Likewise, reading from top to bottom, every value type can be expressed at each level of the innovation typology.

More importantly, each adjacent segment can be linked to a specific innovation or set of innovations. Some of these are doubtless technological, conforming in some degree to existing and emerging theories of innovation as technological change. Others are non-technological or 'soft' innovations. Still others are innovations by consumers or co-creations involving actors at several stages of the value chain. Moreover, the demonstrations show that in order for product innovations that deliver functional value to emerge, many other forms of innovation may have to occur concurrently, or even first, in order for the product to gain traction. As Cassidy (1933) noted in the very first published economic study of Hollywood, the most significant innovation that created this industry was that of combining moving pictures with dramatic narratives and performer personalities. For the success of the motion picture as a wealth-producing innovation, the symbolism of the movie star is as important an innovation as cinematography. Arguably, in the same way, the future potential of the green car will depend as much on innovations that inflect the attitudes and social status of drivers as on innovations in battery technology and materials.

Conclusions and further directions

Rather than propose that innovations will or will not emerge as a consequence of the quality of experience they provide, the above demonstration suggests that

innovations will appear and sustain industrial activity over the longer term, to the extent that consumer or user engagement is created and sustained on many value levels. Although consumers themselves may be active participants in creating this value, opportunities for consumers to play this role are particularly concentrated, and to some extent exclusive, at the hedonic and symbolic value levels. Consumers may become significant agents of entrepreneurship at these levels, inducing new social and cultural signals that create new learning routines, increasing return dynamics and new path dependencies, all of which are already accommodated in innovation theory. However, plenty of opportunities remain for more conventional supply-side entrepreneurs to provide new opportunities for consumer entrepreneurship and, more crucially, to capture its value in forms that can be monetized and traded. They also retain the option of changing the game by introducing entirely new types of experience that could generate entirely new industrial trajectories.

Although scholarship has made progress in admitting these terms of reference to the innovation discussion, there remains an empirical lacuna in demonstrating how these dynamics work in practice. The most immediate application of the innovation-value framework would be in exploring the innovation dynamics of pure experience goods. However, using the framework in a comparative way (as above) suggests that, although contexts may differ, the basic innovation dynamics of experience goods may not vary remarkably from those of conventional manufactured goods. This is a departure, perhaps, and potentially a window of opportunity, to explore products of the creative and cultural industries empirically in terms of their industrial characteristics over and above often irreconcilable arguments centered solely on questions of content. Ultimately, however, perceiving experience as a strategically important dimension of innovation for potentially any type of good alters the perspective on where the engines of innovation lie in the industrial structure and on the forms of knowledge essential to utilizing the experience resource. This may be especially critical for goods, such as alternative energy, with high welfare potential, but faced with resistance in the form of high installed base and switching costs. In such cases, it would be intriguing to imagine an innovation strategy, and a research and development process, originating at the symbolic end of the value spectrum.

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Notes

1. Schumpeter's ideas on entrepreneurship evolved, but not nearly to the extent often claimed. Neo-Schumpeterian scholars describe this transformation in terms of Schumpeter I (characterized by the heroic individual entrepreneur) and Schumpeter II (characterized by the repositioning of the entrepreneurial function within the organization or corporation). Schumpeter's critical biographers and commentators provide a more nuanced view, stressing that Schumpeter's central message in *Capitalism, Socialism and Democracy* (1942) is that the corporatization of entrepreneurship would play one of the decisive roles in the downfall of capitalism (Swedeberg, 1991; Heertje, 2006; McCraw, 2007).
2. Engel is cited today mainly in connection with the effects of income on food consumption, which was the context of much of his work. But his basic theorem (Engel's Law)

that rising incomes lead to demand for a greater variety of goods can also be applied to the entire spectrum of household consumption (Houthakker, 1957; Cornwall, 1977).

3. This term is arbitrarily chosen to differentiate this species of theory from strictly neo-Schumpeterian theory, with which it continues to have many affinities, in particular the continued emphasis on technology, even if in a consumption context.

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