Novelty, preferences, and fashion: when goods are unsettling

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Abstract

There is a whole class of goods — those semi-durable and durable “conveniences”—for which efficiency and functionality seem not to be the main characteristics of appeal, but rather the variability they display in their design properties and in their connections with other goods. These goods have not been much dealt with in economics, yet these are the goods whose new variants households seem to consume in numbers, to which consumers become addicted, and in which fashions appear and disappear. In this paper, I offer a framework for understanding these phenomena without having to resort to one or another form of irrationality on the part of consumers. The rationality I suggest however has to include also the cognitive and affective problems that arise when novelty appears.

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1. Introduction

Why are we surrounded by so many different kinds of chair? They differ not only in color, shape, and material, but also in style: “period”, modern, post-modern, and so on. Would not it be better, more efficient, and less costly, if each chair existed in just one permanent model? This was the dream behind functionalist design; that there should be pure, essential, geometrical forms for goods whose main purpose was their function. Compulsory standardization perhaps was also the normative twist hidden in much discussion of perfect competition (see Hayek, 1948, p. 99).

Yet chairs, houses, lamps, clothes, books, movies, foods, etc. continue to be produced in constantly new variants and often with no or little change in their strictly functional

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properties. Models of quality differentiation (differentiated products), from Hotelling (1929) to Chamberlin to Lancaster, stress that consumers have different tastes and different locations in the characteristics space and that differentiation tries to satisfy them all. This much is true. Yet, individual consumers do not simply choose different varieties among goods, but the same good in different variants. In other words, consumers seem also to change location in the characteristics space. In order to explain this, we would have to assume that for the same consumer preferences are different at different times, or that they can be influenced in some way or another, or that variety can be utility enhancing. Each of these hypotheses, however, is troublesome for rational choice theory.

There is in fact, a whole class of goods — chairs provide a good example — whose functional properties are fundamental in their consumption. I am talking neither about necessities nor exquisite luxuries, but semi-durable and durable “conveniences”. Yet, among these goods, the source of novelty and change for consumers lies less in the improvement of their functional properties than in those formal attributes that are represented by their design features and connections with other goods. Goods such as these occupy a sort of limbo in economic analysis. Their appeal cannot simply be explained in terms of the efficiency improvement they deliver, nor can they be ignored as inessential. These are goods whose new variants households seem to consume in numbers, to which consumers become addicted, and in which fashions emerge and disappear.

Recent economic analyses have started to try to deal with these problems. Adopting the view that consumers act also as producers and that goods are composites of multiple properties (Stigler and Becker, 1977; Lancaster, 1971), many of these questions at last have a framework within which they can be analyzed. I shall show in this paper, however, that the role that novelty plays in choice, and how and why it is produced, continue to be little explored in these models. As a consequence, the link that might exist between novelty and preferences remains untouched, unexplored. The latter problem exists for all types of goods, but it is most evident in conveniences.

The paper will proceed as follows. I will start with a brief analysis of the so-called household production models and see how the appearance of new goods or new varieties of existing goods is handled by them. If the model of the productive firm on which these approaches are based is to be fully exploited, I maintain, however, that the consumer cannot be assumed simply to use new goods as means for the production of commodities that are given, for certain given purposes, but must also be assumed to produce new goods in the form of new-discovered properties and links with other goods. I argue that there are both cognitive and affective incentives in this process and that both translate into potential welfare gains (or losses) for the consumer. I shall show, finally, that, with a different weighting assigned to the role of novelty in consumption, odd forms of behavior such as increasing consumption with exposure, beneficial addictions, and repeated shifts of fashion, can be represented and explained differently from the ways in which they are typically addressed. Consider, for example, the complementarities that establish themselves between past and present consumption and are responsible, in Beckerian accounts, for habits and addictions.

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1 Chamberlin, 1933 was among the first to stress the relevance for competitive firms of product differentiation and of the diversity of consumers’ tastes. In the following pages, I will suggest the relevance too of taste for diversity. For an analysis of recent models of product differentiation inspired by Chamberlin, see Eaton and Lipsey, 1989.
I urge that the impacts of these complementarities can be quite different, when we add in the effect that novelty has on them. A pattern of consuming more of the same of what one has consumed in the past, as in the habit of music consumption, can in fact be broken if repetition without change loses its appeal or if the pattern itself turns out to allow for changes. Just such a mechanism can be seen operating in fashion, where complementarities between private and social forms of consumption can vanish or be reinforced, depending on the way in which familiarity and innovativeness mix in the consumption of fashion goods.

1.1. Household production choice

The first economic models to formalize the view of the consumer as an active maximizer are those now known as the theory of household production (Gorman, 1953; Griliches, 1961; Becker, 1965; Lancaster, 1971; Rosen, 1974). In this approach goods, seen as composites, are used and desired not for their own sake, but for the stream of services and uses they can deliver. Using purchased market goods and time, households produce some more basic desirables called commodities (Becker, 1976, p. 137).

The appearance of new goods (or of new attributes) has the same effect that the appearance of a new means of production has on a firm, it changes the household’s production technology. Consumption capital — the time and skills devoted to the production of consumption commodities — becomes more productive, and the shadow prices of the produced commodities decrease. As a result of substitution effects their demand, and the derived demand of new goods, will increase, while income effects will be freed in the direction described by their specific income elasticities.

It should be noted that the gains in efficiency that new goods provide may be strictly non-material, as when the introduction of vacuum cleaners made domestic work easier and faster. New movies, new books, new cooking recipes, and new clothing styles too can be thought of as entering the household production function, allowing for improvements in the production of “immaterial” commodities that belong to the basic aims of the household such as recreation or the enjoyment of one’s own body.

By shifting the focus to the productive aspect of consumption the household production model has obtained powerful theoretical results, ranging from the problem of the allocation of time among goods and activities to the hedonic technique for measuring quality changes. I share entirely this change of perspective in looking at the consumer and this paper will move along similar lines (see also Bianchi, 1998b). Yet in the approach just delineated there are three open questions that still want for answers.

The first of these refers particularly to the Becker and Lancaster version of the new approach. It is that new goods change the household production technology, but do not seem to alter the set of commodities or characteristics produced. Only the quantities consumed are altered. This means that new cars, telephones, and airplanes are acknowledged as having cheapened the cost of producing rapid mobility and communication, and refrigerators as having done something comparable for fresh food, but through them no new direct or indirect activities were produced. In short, any new input is simply translated into more of the same output. This assumption frees us from the need to deal with consumer preferences, especially how they are formed or respond to the appearance of new goods. But this also has costs, in terms both of logical scope and concreteness. The analogy with the productive firm
on which the household approach is modeled is not stretched so far as to allow consumers to produce new goods in the form of new activities and sources of enjoyment. Additionally, the commodities and characteristics produced have to be defined in a very general way so as to accommodate without change all manner of discoveries that in fact have transformed goods and activities.  

The second question refers to the nature of the technological improvements that new goods determine. It is straightforward to understand how the production of strictly functional properties can be improved by the use of new and more efficient inputs, as when an increase in horsepower increases the speed achieved by cars. But in what sense can we say that the adoption of new songs, or books, or lovers increases the productivity of consumption capital? In what sense can a painting by Picasso be considered an improvement over one by Guercino or the music of Beethoven over that of Mozart? No suggestions are given in the Becker model of the possible links between variety and utility, and if independently we identify some, as I will argue in a moment, then the consequences are rather different from the ones the model predicts.

Thirdly, let us assume that the difficulty associated with choosing not-strictly-functional attributes is temporarily solved. One could then say, perhaps, that the adoption of a new good such as the miniskirt increases the marginal utility of the consumption capital allocated to the production of, say, sex appeal. The marginal cost of using the mini decreases the more minis are bought and the greater the amount of the characteristic “sex appeal” that is produced. Historically, however, after a few seasons of increased demand for minis we have witnessed reversals of demand and a return to long skirts. How do we explain this? Is it just whimsicality? Is it the effect of fashion or of advertising? Of instability in preferences? Each such explanation is troublesome because all seem to imply that there exists a class of goods for which the capability of a consumer to be an active maximizer (as is the firm) is dismissed. But why should there be such asymmetry of behavior in economic agents who are in fact assumed to be both producers and consumers?

There are, then, new questions raised if we accept all the consequences of seeing the consumer as an active producer. First, if we allow consumers also to produce new goods in the form of new commodities and habits, then the problem of how novelty may affect preferences (and vice versa) cannot be ignored. Second, and as a consequence, if we assume new to mean the appearance of something different, something that did not exist before, then we face both cognitive problems — how new goods are recognized and selected, how the mode of their ranking is altered; and affective problems — whether and how new goods are also

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2 In Becker, 1996, for example, consumption commodities are enlarged to include preferences and feelings: new music experiences do not create a new taste for, say, jazz that did not exist before, but simply produce more of the general and given commodity “music appreciation”. For a perceptive analysis of Becker, 1996, see Elster, 1997.

3 For such goods “new” means the appearance of something different, of varied characteristics and combinations. Here, variety seems to reside in the produced commodity or characteristic itself. But, if this is the case, variety is certainly not as easy to treat as, say, velocity. Might it not be true, for example, that it is more, and not less costly to produce variety, the more new varieties we buy? Entering variety in the utility function has the obvious difficulty that any form of behavior becomes easily rationalizable. In order to avoid this tautological trap, as I will try to show in the following pages, variety must be carefully bounded or framed by both individual variables — a consumer’s accumulated experience — and social variables, such as how diffused the experience is among consumers.
more appealing than old ones. Finally, if we allow the desire for variety and contrast to play a role in choice then many of the deterministic features of the household production model disappear and we have to study less general but more concrete cases of consumer behavior.

1.2. The hedonics of new goods

Using the household production approach, recent literature on hedonic prices has given us a better grasp of the impact of new goods on the organization of individual and social life and of their welfare implications. Its analytical results also help in addressing the first of the three questions I just listed. (Bresnahan and Gordon, 1997).

Studying in great detail specific cases of product innovation over time (such as electricity, cars, refrigerators, television sets, computers), this literature has shown the intricate network of complementary and subsidiary innovations that any new good inevitably generates, stressing as a consequence the strong interconnections that exist among goods. All this cannot but change an individual’s perceptions of his or her own welfare. Investing, as they do, in new goods and their complements consumers also develop new habits, tastes, and knowledge (Bresnahan and Gordon, 1997, p. 9). These changes in habits and modes of ranking have relevant measurement implications. Their effects are similar to those that arise in connection with index number theory. The value of an innovation, for example, can be overstated when judged from today’s perspective, once all the associated changes of habits and environment have made it indispensable (ibid., p. 9).

The hedonic literature has focused mainly on the analysis of those durable goods that satisfied previously unmet, but well-definable needs. Less room has been given to all those semi-durable goods, including movies, records, tableware, and clothing accessories, just to mention some, whose changes are less dramatic, but steady, and whose properties are less stable and less objective. Measurement difficulties are partly responsible for this emphasis. Some have tried to provide a hedonic price function for this type of differentiated product (see, for the case of cereals, Hausman, 1997; for wines Nerlove, 1995), but they have encountered identification problems that are not easily solvable, and Hausman has been challenged on econometric grounds. Add to this that there is a great

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4 Originating in agricultural economics in the late 1920s, it was later extended to other goods with the aim of measuring the influence that quality attributes have on prices (Griliches, 1961). Taking as a unit of measurement of quality change an alteration in the amount of the characteristics or quality attributes of a good (e.g. horsepower in a car), and assuming that the price of a good is a function of its attributes, the hedonic approach can estimate the imputed price of quality characteristics by regressing the prices of a good such as automobiles on the different amounts of characteristics embodied in different models (Gordon, 1990, p. 89). The results of these analyses are important and tend to show that official price indexes, by ignoring the way “quality” improvements transfer into the prices of goods such as automobiles, computers, lighting, and so on, greatly overstate the increase of prices over the years.

5 Some models in this approach continue to maintain that new goods do not alter the existing set of given characteristics and that therefore no new items appear in the utility function (Bresnahan and Gordon, 1997, p. 14). But these unnatural restrictions are accepted only for the sake of tractability.

6 See Bresnahan, 1997, pp. 239–242. Among goods of this type new attributes frequently are quantifiable only through the value that consumers “reveal” that they attach to them via their reservation price. But, unless there are enough data to allow us to distinguish cost shifts from demand shifts, which is rarely the case, it is very difficult to identify the underlying demand functions from regressions of prices on quantities and vice versa.
frequency of change in these goods and the difficulties quickly appear to become practically unmanageable.

There are, however, also theoretical reasons behind the resistance to treating these goods as equals. Some who have attended to this issue dismiss as ineffective those changes that appear to affect only the formal or peripheral aspects of a good, while leaving unchanged its basic functions. Truly new goods, it is held, are different, and more is involved in genuine innovation than simple “repackaging” (Bresnahan and Gordon, 1997, p. 12). Not by chance, Bresnahan and Gordon select changing hemlines as an example of the illusory benefits generated by advertising and image. The inference they draw is that, in judging welfare effects, “we cannot always trust consumer behavior to reveal the true value of goods and services” (ibid., p. 11, 17).

This leaves us with a puzzle. Casual observation tells us that it is mostly from these semi-durable goods and their seemingly infinite potential for variation that the inputs of household production come. As economic historians have uncovered, it was goods of this kind, from silk to spices, from buttons and buckles to paintings, to pottery, glass, and furniture, that were responsible for that great expansion of markets, and the rise of cities, that spurred technological innovations in northern Europe in the 17th and 18th centuries (see, for example, McKendrick et al., 1983; Brewer and Porter, 1993; Berg and Clifford, 1999). Why was this so? And why did all the attempts (of moralists and many early economists) to control or stop this proliferation of new products and their variety fail so completely?

In fact, even if the measurement difficulties in capturing the welfare impact of this type of new goods were resolved, we would still lack a theoretical framework for understanding whether they have any welfare impact at all. What are the advantages for example, of the varieties of pattern and color that were (and continue to be) displayed in Wedgwood pottery from the time it was invented? What is newness worth? Why does it seem desirable?

On this point, I will argue that there are both cognitive and utility incentives to produce novelty and variety in consumption. I start with the former, the cognitive ones.

1.3. How goods are perceived as goods

What kind of cognitive processes are at work when new goods appear? The first step towards an answer is to see goods as composites. Thinking, in Lancastrian fashion, of goods as combinations of characteristics, allows us to use characteristics as cognitive keys that can be transferred from one good to another, establishing similarities and differences. Characteristics and their combinatory order then operate as rules of recognition and classification any time a new good appears. 

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7 In suggesting an answer, I draw on ideas in cognition and problem-solving pioneered by Hayek, 1952; Popper, 1972; Simon, 1955. See also Eco, 1997.

8 In Bianchi, 1999, I have adopted and used the term “markers of modality” to stress the fact that characteristics are not given and objective but depend strictly on the social and technological circumstances in which they are identified and formed.

9 I shall not discuss in this paper the problem of the costs associated with the activity of assessing and measuring goods’ attributes. For an analysis of this important problem and of the market arrangements and practices that may arise to reduce these costs, see Barzel, 1982. What I shall discuss, however, is the phenomenon that this activity can be pleasurable, and that the same measures that reduce its costs can also reduce its pleasure.
Matters are more complex, however, for two reasons. The first, and more obvious, is that when some new characteristics appear, these are not resolvable into the elements of the existing set. The second is less straightforward. Since characteristics are embedded in the structured set of a specific good, any new or even old characteristic that alters their internal combinatory relation, also alters the entire good. Add a spice to a recipe and you risk altering the whole effect. Add an Internet connection to an ordinary mobile phone and the whole concept of “telephone” is altered. Add a different ending to a novel and it takes on a completely different meaning.

For both these reasons, our given set of characteristics may be unfit to classify, much less to process (as a cognitive key) the incoming changes. In this case, we are forced either to ignore them or to advance new classificatory rules. The latter alternative, however, once adopted, may easily alter both a good’s existing properties and potential uses and its position in relation to other goods. An example of this process at work will take us temporarily out of our path, but will serve well to illustrate my argument. The example is the discovery of the platypus in Australia in 1797 (see Gould, 1991, pp. 269–280; Eco, 1997, pp. 208–217).

1.4. The platypus

When the first stuffed platypus arrived in London in 1798, its characteristics and shape seemed to defy any known classification. It was as big as a mole and could live both on land and in water — and it was called “watermole”. It had a tail, four legs, a furry body, small eyes, and, surprisingly, a duck bill. Initially it was considered sui generis, an animal that simultaneously shared the nature of fish, bird, and quadruped. When more exemplars arrived in 1802, not stuffed, but preserved under spirit, the puzzles increased. Some of the creature’s characteristics, such as its anatomical structure, were clearly those of a mammal. Yet, no mammmae or mammary glands were visible. Moreover, it was asked, how could a new-born with a bill suck milk? On the contrary, indeed, its reproductive apparatus appeared to be that of a bird or reptile. The platypus must have been oviparous, it was thought, though no traces of eggs were found to confirm this hypothesis. In 1824, however, a German anatomist identified the mammmae, though they were of a sort that fueled rather than quieted the debate, since the glands were big and extended from forelegs to back, and, surprisingly, they were not attached to dugs (only later was it discovered that the new-born simply lap up the milk). The debate between those committed to oviparity and those who ranked this animal as a mammal continued until, in 1884, eggs were finally discovered. The platypus could then be recognized as a new form of adaptation, both mammalian and oviparous. The extraordinary nature of the platypus held still more surprises, however, and to this day new

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10 Jack Birner has drawn my attention to the fact that already in Wieser’s theory of value, adding or removing one good from a bundle alters the whole. Utility measures, then, should take into account also the links of complementarity and substitutability that establish themselves among goods. For a discussion of Wieser’s theory and its relation to Bohm Bawerk’s, see Birner, 1997.

11 One reason why this problem is not explored in the literature on household production is that, besides those I have already mentioned, the problems of welfare connected with new goods arise only after their adoption, not before. Correspondingly, also in the models of product differentiation, all the possible varieties of goods are given and known, as are preferences over them.

12 Some favored the hypothesis of oviparity, birth from eggs, whose shells dissolve in the female’s body.
properties, such as an incredible array of sensory organs hidden in the bill, continue to be revealed.

Thus, when the platypus first appeared the first strategy of naturalists was to reduce its novelty by applying existing classificatory rules. But, if these helped in assessing some of its properties, they failed in other ways. The result was that fresh classificatory rules were added, among them the category of monotremes, advanced specially to provide for Australian egg-laying mammals. These allowed the platypus to be invested with specific new properties. Yet, upon further properties being discovered another readjustment of classification was needed; this, in turn, opened up the possibility that even more novel properties might be discovered.

What does this story tell us? First, it helps alert us to the fact that there is a parallel in the world of goods, whose attributes, their internal relations, and their relations with other goods, work as classificatory rules, rules of identification and of re-cognition. Second, these rules work in both directions. From one side, they reduce novelty, transform something unknown or little known into something knowable; from the other they also increase complexity, as when, by establishing new interconnections and classifications, added dimensions in the form of new-discovered properties accrue to the original good.

If this is the general process by which we assess goods, it means that even when a good is already known and experienced there is always the possibility that new properties and combinatorial solutions might be discovered. Novelty then is not a phenomenon confinable to the exogenous appearance of new goods, but the ongoing result of the process of consumption that changes both productive inputs and the consumable outputs. In assessing goods, we activate a process of discovery of new uses and interconnections with other goods. Learning by using means also to produce novelty.

1.5. Consumer losses and gains

This cognitive background of consumer choice has important consequences for consumer behavior. Characteristics, I have suggested, do not exist alone but are organized in a structured set. When we acquire a good, it comes with a whole bundle of constitutive elements and we cannot freely dispense with these. Correspondingly, when confronted by a good, and particularly a new good, our given set of identifiers allow us to perceive only a limited subset of its potential characteristics and uses. Initially, then, a good may have more (or possibly fewer) characteristics than we can perceive or use. This discrepancy between the perceived and the existent set of given or discoverable characteristics is a source of potential gains and losses to the user, independently of any change in prices or income. When one buys a car, if one is interested only in its functional properties, the fact that it comes in expensive material and sophisticated design is irrelevant or even a nuisance. Yet, if differentiation does not provide an alternative with cheaper substitute characteristics, one

13 Though in the characteristics approach we are used to thinking of goods as perfectly manipulable combinations of characteristics this is often not available to us. We cannot choose freely the characteristics, we want to activate and the ones we want to dismiss. Characteristics cannot usually be “stripped” and traded separately. But, if this cannot be done or cannot be done without costs, then, as Thaler shows, a market in goods is not a substitute for a market in characteristics (1991, p. 248).
pays for these things anyway. Using a computer only for more efficient typewriting clearly underutilizes its capabilities. Yet, as the linking of PCs with the Internet has shown, such potential but unexplored opportunities may also be a source of new uses and of changes in consumption, which can be exploited by consumers or firms, or both.\textsuperscript{14}

Ex-post utility, in short, can be different from ex ante. And this process of activation of new uses is not limited to the appearance of new goods.\textsuperscript{15}

In a recent work (Bianchi, 1999), I have shown how, even for established and well-experienced goods, there is room for new combinatory solutions that give rise to entirely new sets of uses. This was seen to be the case for wristwatches. Swatch watches, at their first appearance, completely subverted the combinatory order of characteristics we had learned to associate with watches, with what constitutes a watch. Before Swatch, watches were meant simply to last and to be precise; with Swatches these characteristics became secondary. Elevated above sturdiness, reliability and preciousness of materials were characteristics such as the playful variety of colors, and drawings displayed on the cheap plastic band and case. But with this inverted order of characteristics new ones also emerged. Watches could now be owned in numbers, collected, thrown away with little loss, changed frequently, exchanged at increased prices, and so on.

A good then can be used in multiple ways, and the same aim can be achieved through multiple goods. This in turn gives rise to value that alters through time. The problem is not different from that of slack in the production capabilities of a firm. As repeatedly pointed out by Edith Penrose (1959), it is the set of their unexploited capabilities that allows firms to create new technological and organizational combinations and to grow (Bianchi, 1995, p. 188; Foss and Robertson, 2000).

1.6. Styles

In order to identify and distinguish goods, however, we rely not only on their characteristics and internal order, but also on the set of interconnections they establish with other goods. These too are part of our system of classification rules, rules that may increase or decrease the degree of novelty a new good or characteristic carries.

The case of Swatch watches, in this regard, was not singular. Starting in the 1980s, in many fields of consumption goods, though with different timing, configurations or orders of characteristics very similar to those introduced by Swatch can be observed. The list is long and runs from clothes to furnishings and decoration, to architectural solutions, from tableware and lamps to art products in general. In all these fields, a comparable prominence was given to the use of color, to a search for new materials (often plastics), to rapid changes

\textsuperscript{14} A rather vivid example of the potential advantages and losses that exists in this inseparability of characteristics, is the case of albums that bundle together songs consumers like with those they like less. This advantage to record companies has been undermined recently by the discovery of enterprising consumers that they had the capability to swap selected music files freely on the Internet.

\textsuperscript{15} What I am insisting upon here is somewhat akin to Simon’s distinction between substantive and procedural rationality and Kahneman and Tversky’s distinction between decision utility and experienced utility. Procedural rationality and experienced utility are terms which emphasize that there is an element of active choosing and a context for satisfaction, not just a logic of choice and logical coherence in one’s preference orderings (see Simon, 1955; Kahneman and Tversky, 1979).
of model, to forms that, in addition to having functional properties, were modular and flexible, frequently ironic. As with Swatches the set of possible uses was not predefined, but left to users to discover and work out, with the result that such objects could be produced in large numbers and yet retain some uniqueness.

Swatch watches, in other words, inherited or simply exploited configurations of characteristics that were emerging in different consumption fields. This feature is what made them understandable and potentially acceptable. At the same time, although the configuration code was common, since it was applied to a different object of use, it produced something new relative to what had been the norm in that field, thus giving rise to new properties and uses.

This is not always the case. Many of the new configurations here described and which are now common to many goods, are very similar to patterns that were tried in the past, but remained confined to avant-garde movements. The reason in this case is that they were so new that they lacked the rules of decodification and transferability that would have made them comparable, hence somewhat familiar. The 1909 manifesto of the Italian futurist movement, for example, advocated a radical change in the objects of daily life through the introduction of color and lightness, fantasy, motion and deliberate contamination of styles. The futurist dress was decomposable and asymmetric, futurist furniture multi-purpose and strongly colored. These and many other objects were technologically simple and easy to realize, yet they remained elitist and unique at the time.16

Conversely, this explains why many new goods, despite the evident “efficiency” gains they provide when they first appear, have to be translated into more predictable patterns in order to gain acceptance. This was the case, for example, with the first sewing machines; before they could breach the domestic market they had to be disguised in more familiar forms, to shed the machine look of the factory. This was accomplished by the addition of ornamental carvings and decorations. Similarly, the first radios were hidden in armchairs or in cabinets, as were record players. Even cars retained for a long time, and especially in the American market, the recognizable look of carriages.

In brief, then, not only single characteristics, but whole patterns of characteristics can migrate from one set of goods to another, loosing themselves from their initial concrete forms and uses. When this happens and clusters of similar configurations are seen to connect goods of different sorts, we have what are called styles. Styles repeat the same pattern or order of characteristics across goods, with the effect that a good is made more recognizable because its specific configuration is shared by numbers of other goods. If, however, sharing characteristics and configurations increases recognizability among goods, making connections where there were none generates genuine newness and variety. The result is that sets of complementarities and rivalries among goods are continually created anew.

1.7. Increasing consumption and positive addiction

Despite the fact that behind the production of Swatch watches there were many technological improvements that allowed for competitive pricing through a reduction in the

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16 The contemporary Italian fashion designer Laura Biagiotti acquired many of Giacomo Balla’s futurist designs and has used them for some of her 1990s dress collections. Though the final effect is still startling, the dresses no longer seem so provocative and strange as they must have been 70 or 80 years ago.
number of components and via miniaturization and lightness, still the final result can be easily described as a simple operation of repackaging. Mix color, plastic, and some citations from pop culture and the trick is effected. Yet, Swatches became an object of desire. The same can be said for many of the other goods I have mentioned. In all these cases, change and novelty came mainly from their formal or design characteristics, much less from their functional properties. Yet exposure to these goods also clearly excited a desire for more. We do not accumulate refrigerators, but surely we accumulate (or better collect) clothes, shoes, lamps, books, CDs. It is these latter goods that most obviously challenge the notion of finite needs. They embody what Marshall described in reference to music, that the more we listen to it the more we like to listen. Pleasure increases with exposure.

Gary Becker refers to Marshall’s example of music consumption to try to solve the puzzle of what he calls beneficially addictive goods. 17 These are goods for which past consumption increases the utility of present consumption. 18 The underlying process is similar to the one I have analyzed in the case of new goods: past consumption, by increasing the stock of human capital, increases the productivity of the time spent on the addictive good, rendering the production of the ultimately desired “commodity” cheaper. What seemed an effect of shifting tastes is shown by Becker (and Stigler) to be interpretable as an effect of a change in relative prices. The more music we have listened to in the past, the more books we have read, the less costly and more efficient it becomes to listen and to read in the present.

Prima facie this argument seems to be perfectly plausible and to register the simple fact that the “learning” associated with the “doing” enjoys increasing returns. But, when we try to specify the internal mechanism of this process things are not so simple. First, the model does not specify what we are in fact consuming when we consume addictive goods. What is the unit of consumption that, when repeated, yields increasing returns? Is this a single good, such as a symphony in the case of music, or a particular novel in the case of reading? Or is it the generalized experience of listening to music or reading literature? Both possibilities are troublesome. In the first case, if we do not cease consuming the good altogether because repetition becomes unpleasant, then learning, as Becker would have it, makes us addicted to a single book or piece of music, not to music in general. This is implausible. Yet, on the other hand, if the addictive “good” is said to be generalized experience of a certain type, and this experience comprises a number of goods that change over time, it becomes problematic to suppose that the successive doses of our experience are in fact of the same sort (cf. Bianchi, 1998a). If doses of successive experiences are different, how can we measure their marginal contribution to pleasure? And even if this could be measured, why must we posit that it yields increasing returns?

As we have seen in the cases of goods described above, past consumption does not (only) make us more productive in producing more of the same use, but in multiplying uses and properties. Variety (and its pleasures) seems a more plausible and concrete focus of attention than the elusive “increasing returns” of learning by consuming.

17 I leave the discussion of Becker’s analysis of harmful or negative addiction — such as the consumption of alcohol, cigarettes, or gambling — to Elster and Skog, 1999.
18 In the case of negative addiction, instead, the utility of present consumption is lowered by past consumption, a feature that is called tolerance. Reinforcement, or the fact that past consumption increases the marginal utility of present consumption is common to both; see Stigler and Becker, 1977.
Tastes may well not change in the process of consuming, but goods, experience, and knowledge certainly do. Moreover, I will argue shortly, goods, experience, and knowledge have to change if our taste for consumption is to be maintained. As noted in the Introduction, between past and present consumption there are links of complementarity. With the perceived novelty of a consumption experience, these can be reinforced and strengthened, though they might also be broken.

1.8. Why novelty?

What is it about novelty that appeals? Novelty, and connected variables such as variety and complexity, have often been assumed to have a pleasure potential for action and choice, yet without any explanatory mechanism being provided. Only recently have studies in experimental psychology and psychobiology started to investigate the hedonic dimension of novelty in choice and the effect that related phenomena such as time and exposure can have on pleasure.19

An approach I favor for its systematic way of treating the problem of novelty in choice is that advanced by D.E. Berlyne in the 1960s and 1970s. It states that novelty, complexity, variety, and surprise have positive effects on pleasure, provided that there exists some (experiential, cognitive) rule by which we are able to decrease the degree of its presence when this is perceived as too high, and to increase it when it is perceived as too low. When we face a task that is too difficult or a problem that is too complex, the experience is frustrating and will be abandoned, but when a behavioral or cognitive key allows us to deal with the difficulty, the experience can be transformed into something pleasurable and worthwhile. According to this theory, then, it is not the absolute level of novelty and variety that is felt as pleasurable, but the change relative to an initial and unsettling position that causes pleasure to increase.20

Thus, the cognitive processes that we have seen at work in the case of goods, and which help to increase and reduce their degree of novelty relative to what is perceived by us as either too familiar or too complex, may also have an important pleasure dimension attached to them. Very plainly, all the processes that transform a good that is perceived as too complex or too out of the ordinary into something more recognizable and manageable make it also more likeable. The reverse holds for ordinary and well known goods.

This framework can also help in explaining why there are some goods, such as listening to music, whose consumption increases with exposure. In fact, on the basis of the previous discussion, we should predict the opposite, that the more we consume of a good the more its novelty erodes and the less likable it becomes. Its consumption may eventually drop to zero as its experienced novelty is eliminated. Unless, by the same process, we are able somehow to renew that novelty. Goods, we have seen, are complexes of multiple elements, in which

19 See Berlyne, 1971 and more recently Kahneman et al., 1999. In this last set of studies, some authors (see in particular, Kubovy, 1999, pp. 139-142) have criticized Berlyne mainly because his theory of preference for intermediate novelty and complexity lacks the necessary frame of reference to make it other than trivially true. This is a real risk of Berlyne’s model as of any model that purports to provide a general theory of behavior. Yet in this paper, I have tried to show that the boundaries of novelty and variety can be made context-dependent through a specification of the temporal and environmental variables that enter into individual, accumulated experience.

20 This parallels the experimental results of Kahneman and Tversky’s studies (1979) on “framing”, i.e. contextualizing choice relative to some reference position. For applications to economic problems, see Thaler, 1991.
the system of internal and external connections supplies a general frame of reference and recognizability. Any new good in this reference frame both confirms the frame itself and violates it. Any new piece of music of a familiar genre or style confirms what we have learned to expect from it in general, but disconfirms it in detail, and it is this mismatch that is felt as pleasurable (Rozin, 1999, p. 127). Any new mystery, any new seasonal collection of familiar items of clothing, any new watch, by adding new variants to a recognizable pattern or style, displaces our set of expectations and causes pleasure once again to increase.

It is clear, however, that the process of variation that defamiliarizes the known does not necessarily require the appearance of new goods. As I have already argued, since goods are complexes, acquaintance with one dimension of the good may itself open up new, hitherto undetected ones. We can repeatedly listen to the same piece of music or read the same poem and still discover previously unnoticed details that continue to make the experience pleasurable.

Within this framework, then, odd forms of consumer behavior, such as craving, collecting, or iterated consumption, do seem to yield increasing marginal utilities, but they do so only because they deliver more of the different, not more of the same, experience.21

1.9. Fashion I: cascades

From the previous discussion, we can deduce that the perceived novelty of an event — of a good, an experience — is not given, but depends on the accumulated knowledge of the event and on the time elapsed since the last experience. Whether there is too much or too little novelty in a good depends on the specific frame of reference that different individual consumption careers determine.

But the role that novelty plays in choice also has a social dimension that depends on the fact that there are other people performing the same or a similar choice or action. Other people’s experience may signal something new relatively to one’s own familiarity with the event, or it may contribute to its more rapid obsolescence, as when the number of people sharing it increases.

In the phenomenon of fashion, we observe essentially two features: (a) fashion involves novelty — new songs, new movies, new hairstyles periodically gain social attention and are adopted; but (b) this novelty often has a short life.

Because of these two features, which seem to signal erratic preferences, the phenomenon of fashion has been particularly difficult to accommodate in economic analysis. Two main ways of dealing with fashion have been advanced. One, modeled quite recently, stresses the informational problems that may cause fashions to arise, the other has a long tradition and mainly portrays fashion as the result of both conformism and social rivalry.

The models that portray fashion as just another instance of the phenomenon of informational cascades (see Bikghchandani et al., 1992, 1998) argue the following. Under certain circumstances — people confront a similar decision problem, but the signal whether the

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21 I have analyzed the possible reasons why, in collecting, any additional item may provide increasing marginal utility in Bianchi, 1997. By entering novelty and variety in the utility function, economic rationality is confirmed, but not the notion of equilibrium. Equilibrating processes and pleasure do not move in the same direction: the first privileges rest, whereas the second depends on unrest.
decision is correct or not is uncertain — later adopters do better if they dismiss their own private signal, and simply imitate the behavior of previous adopters. In this way they may strongly increase the probability of making the correct choice. This process leads to really correct choices, however, only if early adopters happen to follow the correct signals; otherwise wrong choices will be the collective outcome of the cascade. The result in any case is that previous success triggers subsequent success, independently of the effective gain that may be associated with it. Because of these self-sustaining dynamics, cascades are fragile: if an individual irrationally follows his or her private, but correct, signal, or some newcomer intervenes with new information, the cascade stops.

The cascade model captures well the feature that fashion involves novelty and that novelty involves the possibility of making mistakes. These mistakes are more likely to be contagious the less familiar and more unique is the event and the less iterated the game. Neither of those complementary features, however, characterizes fashion systematically. Differently from other forms of contagious behavior such as manias, panics, or electoral campaigns, fashion involves goods that are new certainly, but which arise in the context of already known and familiar features, or styles. Fashion, additionally, is a repeated game. Fashions in the same sets of goods such as seasonal collections of clothing, but also food, cars, and even scientific theories (as Stigler and Becker, 1977 remind us), may be fragile and vanish; nonetheless they continue to reappear with regularity. If it turns out to have been a mistake to adopt them, rationally they should not be repeated; yet in the absence of mistakes, the very fact that many fashions fade, but also come back, suggests that fashion in general is not (simply) a cascade phenomenon.

Alternative models, which portray fashion as the result of a desire both to conform and to differentiate oneself from others (invidious comparison), explain this feature of repetition in fashion. We continue to adopt behaviors that are either socially accepted or socially envied even if this may involve erroneous or undesired choices, because we cannot escape social influences. Yet, since social influences work in unpredictable directions, we are left with little grasp of why some fashion goods emerge and are adopted and some others are not.

In fact in both these types of models the general rule that goods are chosen for the direct or indirect utility they deliver seems somehow suspended: unlike, say, air conditioning, fashion goods allegedly are chosen not for themselves, but for the characteristics we think others attach to them. Or, put differently, in the case of a fashion good, the characteristics that make it socially acceptable overwhelm all the others, including the possibility that we take pleasure in the object.

22 Becker rationalizes this form of behavior, re-labeling fashion goods as those indirect goods that are necessary for the production of a commodity called distinction or style. Since distinction is a positional good — the more you have of it, the less I have — the more you follow fashion the more I am “forced” to follow it (Stigler and Becker, 1977, p. 88).

23 The consequence of this is that the question whether there exists any objective advantage to adopting a good that through fashion has gained social acceptance, is never asked. Recent models of goods’ diffusion correctly stress and analyze many aspects of the relational character of consumption (Bernheim, 1994; Cowan et al., 1997; Corneo and Jeanne, 1999). Even in these models, however, the assumed existence of class and status preferences, and communication segmentations among consumers, seems to be enough to explain fashionable behavior. An example of the potential of a model of interpersonal consumption which, on the contrary, also includes as determinants of choice among fashion goods the pursuit of novelty, besides the formation of habits and imitation, is given by Rizvi and Sethi, 1998.
Apart from the serious gap that a similar approach would open in rational choice theory, since the presence of social influences can be shown to exist in any good and therefore, systematically to undermine the independence of individual choice, this position is hardly tenable.²⁴ But, what then are the characteristics of fashion goods, apart from their being socially acceptable, that make them desirable?

1.10. Fashion II: the desire for novelty

Fashion goods share with all goods that become desirable the fact that they mix novelty with familiarity, creating a contrast between what is expected and what is experienced in a good. It is this mismatch that we have seen can be linked with pleasure. Adding a social dimension to this process can either increase or decrease the pleasure of the experience. With fashion the novelty element of a good, by being socially shared, becomes immediately prominent, salient. It becomes then less difficult or costly to appropriate it and adopt it. By the same token, however, salience is also more rapidly eroded and has a shorter life.

This process of (more or less) temporary salience in fashion follows similar lines to styles. In styles we have seen that it is the replication of similar patterns among goods that guarantees recognition, and it is the superimposition of previously unconnected ones which imparts its novelty potential to a good. That is why successful patterns, which tend to be easily recognizable, often continue to be successful when extended to additional sets of goods. Yet it also explains why an overcrowding of similar patterns among goods, by increasing repetition and redundancy, might stimulate the search for new configurations and thereby bring about the appearance of a new style.

If styles exploit the interconnections among goods and their characteristics, fashion adds to these interconnections among consumers. Sharing styles and imitating the behavior of others increases recognizability and identification. Contrasting styles and behavioral habits emphasizes novelty and distinctiveness, and breaks the predictability and lack of information in a code that is too much repeated.

The process of diffusion, the way it starts, dies, and starts again in different directions, reflects the segmented character of knowledge in society, the fact that what is familiar to some in some field is unfamiliar to others, but reflects also how novelty is differently perceived and enjoyed by different people. While later adopters are still exploring and appreciating the potential novelty of some combinatory solutions, earlier, more expert, adopters are already experimenting with new, more exciting ones.

A sufficient reason for the “in” and “out” pattern among fashion goods is the one I have given. The more easily recognizable is the “fashion” good — because, for example, its changes are minor, as with hemlines — the more it appropriates a familiar pattern (e.g. films such as the Rocky series), and the more imitated it is (flared pants in the seventies), the quicker too, however, is its novelty content exhausted and the faster it is abandoned, perhaps to be revived in a modified version. This explains, conversely, why some goods last longer. Because of their flexibility in use, their complexity, or their open combinability with other goods, they “release” novelty — and pleasure — over time. Why, for example,

²⁴ In Bianchi and Andreozzi, 2001, we devise a simulation model of alternating fashions in which fashion goods are chosen for themselves and for the utility in terms of novelty they deliver.
does Mozart or Venice never become tedious? Why are they always “fashionable”? In short, if fashions change, disappearing or returning, it is not for lack of information, but for its excess, the excess of recognizability that their diffusion and prior experience produce.

To sum up, it seems undeniable that the novelty dimension of an experience (an action, an event, an object), as well as its variety and complexity, plays an important role in choice. Its degree depends on three variables: the timing of the experience, or how far distant and frequent it is; accumulated knowledge, which creates its expected novelty; and the environment, which includes the behavior of others and describes how widely spread and shared an experience is. Different mixtures of these variables also produce different mixtures of novelty, and therefore, also different incentives to action. At one extreme, the more frequent, more known, and more shared by others an event is, the less is its novelty content. At the other, there are all those events that are sparsely repeated, little known, and that few share. In the first case, there is an excess of recognizability, in the second, a deficiency, and in both little pleasure and incentive to action.

2. Conclusion

There are some people who, when reading a novel, read the ending first. Others, probably more numerous, do not want to know the way it ends, lest they spoil the novelty and surprise it conceals. We might suppose that, as is the case with risk, people also have different attitudes towards novelty, that they experience varying degrees either of propensity or aversion. Yet again, as with risk, so with novelty, attitudes are not given, but depend on the personal and social frame of reference within which they are cast.

This frame of reference, we have just seen, depends largely on three variables: time, accumulated experience and knowledge, and the environment. Playing on the way these variables are combined also changes the way novelty is perceived. The same new good or experience may have a completely different impact on the choices of different persons, or of the same person at different times.

There is a class of goods, however, towards which people’s choices seem to converge when new varieties of them appear. These are the goods one becomes addicted to, or which enjoy, as in fashion, a more or less sustained success. One of the reasons, I have argued here, is that such goods exhibit combinations of characteristics that provide a general and shareable recognizability. Beyond this, these are combinations open enough to allow for constant varieties to appear and to be individually discovered. From visual art, to music, to literature these are the features that endear them to people. But, I have shown, these features have, in addition and always, spillover effects on those items of our consumption that we think of as semi-luxuries or semi-durables. These spillover effects can be dismissed as beyond the scope of our rational models, or they can be analyzed and explained, provided only that we allow rationality to include also the cognitive and affective problems that arise when novelty enters.

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