

**Discussion Paper**

No. 2014-23 | June 04, 2014 | <http://www.economics-ejournal.org/economics/discussionpapers/2014-23>

Please cite the corresponding Journal Article at  
<http://www.economics-ejournal.org/economics/journalarticles/2014-44>

## **The Magic of Storytelling: How Curiosity and Aesthetic Preferences Work**

*Marina Bianchi*

**Abstract**

Why do we love stories? That this is not an idle question is shown by the fact that we spend an enormous amount of time in our lives following stories: telling and listening to them; reading them; watching them on television or in films or on stage. Despite their recurrent similarity and even predictability, we continue to enjoy them. The paper brings to bear on this question two different strands of current literature in experimental psychology: the literature on aesthetic preferences, and the literature on curiosity and interest. The paper discusses how, in the case of storytelling in particular, though also of creative activities in general, there are two types of curiosity at work: explorative curiosity – associated with investigating new ideas for the simple joy of it and regardless of source – and specific curiosity, corresponding to focused exploration and aimed at solving problems for which the accuracy and relevance of information is of importance. In both cases curiosity is felt as an intensely pleasant experience, which is affected not only by external, but also by the internal stimuli of novelty and challenge. But how does interest/curiosity solidify into preferences that have stability enough to guarantee guidance yet sufficient flexibility to allow for change? The answer explored here highlights the distinction between comfort goods and activities and creative goods and activities. The latter, which allow for complexity, variety and multiplicity of dimensions have a transformative power that allows also for sustained stimulation and interest. The broader aim is to analyze the “behavior” of individual preferences in consumption activity, not only of art, the usual focus in discussion of aesthetic preferences, but also of all those goods and activities that can be called creative.

(Published in Special Issue [Economics, Psychology and Choice Theory](#))

**JEL** D01 D11

**Keywords** Aesthetics; motivations; curiosity; consumer preferences

**Authors**

*Marina Bianchi*, ✉ [University of Cassino, Italy, marina.bianchi@unicas.it](mailto:marina.bianchi@unicas.it)

**Citation** Marina Bianchi (2014). The Magic of Storytelling: How Curiosity and Aesthetic Preferences Work. Economics Discussion Papers, No 2014-23, Kiel Institute for the World Economy. <http://www.economics-ejournal.org/economics/discussionpapers/2014-23>

### *Introduction*

In 1944 Edmund Wilson published an article in *The New Yorker* entitled “Why do people read detective stories?” In answering his own question Wilson charged the mystery genre with being dull, badly written, and utterly formulaic, a “department of imaginative writing” that was “completely dead” (p.84). To his great surprise, readers rebelled. He received so many passionate letters in defense of mystery stories and authors – more than those he had received in answer to his famous criticisms of the Soviet Union - that he went back to the topic in two articles that appeared in the first two months of the following year. By then, he had done his homework and read many of the contemporary writers his readers had suggested. But he was unrepentant. Reading detective stories, he concluded, “is simply a kind of vice that, for silliness and minor harmfulness, ranks somewhere between crossword puzzles and smoking” (1945a: 65).<sup>1</sup>

Arthur Krystal, in a recent issue of the same magazine (May 2012), revisited the same issues. In “Easy writers. Guilty pleasures without guilt,” Krystal gives us an account of Wilson’s position as well as an up to date follow-up. The debate between literary fiction and genre fiction – the one, Krystal notes, supposedly good for you while the other merely tastes good – clearly did not cease in 1944. In the interim, and despite still numerous detractors of the mystery genre, many have also come to its defense. Some of these have simply declared that mystery is art, but there are also those who note that mystery has come a long way from the simple and crude artificiality of its origins. Today, not only has the genre gained literary status, but any claim for the superiority of one genre over the other does not go unquestioned. Indeed, Krystal reminds us, the guilt might “peel off” from the pleasure if only one recalls that the novel itself, today perfectly acceptable, was, on its first appearance in the eighteenth century, the target of criticism

---

<sup>1</sup> Wilson however not only exempted Arthur Conan Doyle from the same charges, but in his third article on the topic he gave a sympathetic and precise analysis of Holmes’ adventures (1945b).

by self-appointed guardians of morality and propriety who denounced it for being basically unproductive and sought after solely for the idle pleasure it provided. By Victorian times, of course, fiction had become the leading literary genre (Bianchi 2008).

Guilty or innocent expenditure of time, literary or not literary fiction, we are left with a larger question: what makes storytelling in all its forms such a very resistant source of pleasure?

I shall try to answer this question by bringing together two different strands of current literature in experimental psychology, one dealing with aesthetic preferences, the other examining curiosity and interest. In both the aim is to analyze the “behavior” of individual preferences when dealing with the consumption, not only of that which is usually taken to be the object of aesthetic preferences, art, but also of all those goods and activities that might be called creative. By this last designation, as will be clarified further below, I intend all those goods and activities that are enjoyed in themselves and not for extrinsic reasons, as a means to something else.

After first having explored the possible variables that trigger aesthetic responses to creative goods and activities, I will discuss the underlying motivations. It will emerge that, in the case of storytelling and of creative activities in general, there are two types of curiosity at work. The first, explorative curiosity, is associated with investigating new ideas for the simple joy of it and regardless of source, while the second, specific curiosity, corresponds to focused exploration directed toward solving problems for which the accuracy and relevance of information is important.

In both cases, however, curiosity is felt as an intensely pleasant experience, affected by both the external and the internal stimulus of novelty and challenge.

The question then becomes: how does interest/curiosity solidify into preferences that have stability enough to guarantee guidance, yet sufficient flexibility to allow for novelty and change? The answer that I shall explore turns on the distinction between comfort goods and activities and creative goods and activities. The latter, which allow for complexity, variety and multiplicity of dimensions, have a transformative power that allows for sustained stimulation and interest.

The final goal of the paper is to enter into the working of individual preferences, freeing them from the usual presumption that hinders their analysis, namely, the strongly-held supposition that *De gustibus non est disputandum*.

### *1. Storytelling and universal plots*

In the eighteenth century, with the increasing diffusion and diversification of books, together with the growth of literacy, there arose a new and expanding public of readers both in Europe and in North America. Within these new readerships, an equally new, but more revolutionary form of literature gathered followers, the novel, which, surprisingly quickly, supplanted the old volumes urging piety, and the more serious history and biographical books. This public preference was both feared and opposed. Yet, despite vociferous criticism and open condemnation, novels did not lose their power to attract. <sup>2</sup>Why?

The question is not an idle one. We have only to remember that reading for pleasure shares its power to entrance and to captivate with many other forms of narrative: story telling and listening, including the following of TV serials, songs, folk tales, memories, legends, myths, jokes, movies and videogames. Indeed, a large amount of each day is spent in one or another form of narrative activity (Nell 1988, 47).

What is also remarkable is that all these forms of narrative seem to draw systematically on a very few recurrent themes. Christopher Booker, who has sifted centuries of literature in all its variety and forms, identifies just seven basic plots: Overcoming the monster; From rags to riches; The quest; Voyage and return; Comedy (mishapprehensions and disclosures); Tragedy (the dark side of comedy) and Rebirth. These plots appear to be the recognizable anchorage of storytelling and they repeat themselves across quite different times and places (Booker 2004).

Not only that, but the structure of these apparently universal plots seems to share recognizable patterns in terms of obstacles and resolutions. After initial difficulties,

---

<sup>2</sup> “That’s what has thrilled me most about Jurassic Park phenomenon. It’s not ‘domination’ by American cinema. It’s just *the magic of storytelling, and it unites the world*. And that is truly gratifying” (Steven Spielberg, *Variety* 1994, quoted in Hiltunen, 2002, p. xii (emphasis added). See also Woodside, Sood, and Miller 2008).

heroes and heroines face a Call, which sends them out into a wider world. There they enjoy initial rewards and successes, only to see these destroyed by a central Crisis, in which suddenly everything seems to go wrong, until they finally gain Independence and the Fulfilment of all their wishes (ibid. p.65). These patterns can be made more complex and multiplied, subdivided or truncated, but they continue to punctuate and give rhythm to the unfolding of the plot.

Yet, and paradoxically, despite this recurrent similarity and even predictability of content and structure that narratives seem to share, we continue to enjoy them. Why is it so? What is their power of attraction? And, what are the specific ingredients that pull us towards this or that story, and that selectively make us like one more than another?

In formulating some tentative responses to this question I shall start by drawing on some of the findings of a relatively recent but rapidly growing psychological literature on aesthetic preferences. In this new research field the object of inquiry is an analysis of the emotional responses elicited mostly by visual art, though its insights are germane to fields such as media, design, fashion, advertising and, most immediately pertinent, literature.

## *2. Aesthetic preferences: Berlyne's collative variables*

A pioneering figure in studies of aesthetic preferences in the 1960s and 1970s was the psycho-physicist Daniel Berlyne, whose development of a “new experimental aesthetics” (1960, 1971, 1973) involving laboratory research based on behavioral-science methods, still represents the reference point of much contemporary research on art (see Silvia 2005).

Berlyne introduced a specific group of variables that he posited were responsible for our emotional responses to art. These were all viewed as different components of the stimulus or “arousal potential” of an event – a piece of music, a drawing, a poem. Berlyne organized them into three distinct sets. The first were the “intensive variables,” or, as he later called them, the “psychophysical variables.” They involved the sensory intensity of a stimulus, such as the loudness of sound, the brightness of light, size, chromatic colors, and so on. A second set, the “ecological variables,” referred instead to

those external conditions that biologically were either noxious or beneficial. In art, and especially in literature, paintings and sculpture, these variables do not act directly – other than in the case of real physical pain inflicted – but through association. Depictions of situations that evoke fear, anxiety, or sexual tension tap the stimulus potential of these variables, and a higher degree of intensity in the promptings generates increased stimulus potential.

However, the most important set in Berlyne's eyes was the third, the one comprising what he called the "collative variables", those related to the complexity, novelty, uncertainty, surprise, ambiguity, and conflict inhering in an event. The term collative indicates that in order to judge whether a work of art is new, surprising, or complex one has to compare or collate two or more sources of stimulus or events. More precisely, in the case of novelty, variety, and change the comparison is between the actual and the previously *experienced* event, while in the case of surprise the contrast is between the actual and the *anticipated* event. Conflict instead arises in the presence of *simultaneous responses* to an event, while uncertainty is involved when there are *simultaneous expectations* of an event. Complexity in turn is the result of a contrast between one element of an organized set and other elements that accompany it (1960:44).

The introduction of this new set of collative variables and the way they connect to pleasurable feelings represented a breakthrough in the study of aesthetic preferences. By means of them Berlyne supplied a new empirical basis to previous, but intuitional, analyses of aesthetic responses,<sup>3</sup> while redefining the findings of earlier experimental researchers. The names most often invoked here are those of Fechner (1860/1966) who had shown that the pleasantness of a sensation is monotonically correlated to the level of its stimulus properties: i.e. that higher the level of stimulus the higher the pleasure (up to a point of saturation), and Wundt (1896/1969) who, in his "psychical analysis", tried to analyze, and experimentally measure, the relation between sensations, the physical responses to the stimulating elements of experience, such as light, sound, taste, smell, heat, color, and the subjective affective elements – the feelings of the experiencing subject. The intriguing finding that emerged was that if physical sensations vary

---

<sup>3</sup> See for example Montesquieu's *Essai sur le gout* (1757/1993) where he discusses curiosity and the different effects that symmetry, order, variety, contrast and surprise have on pleasure. See also Hogarth's *The analysis of beauty* (1753/1955) and the discussion of his contribution in Bianchi1998a.

according to their intensity, feelings vary according to opposite dimensions: pleasant-unpleasant, excitement-depression, tension-relief.

According to Berlyne's own experimental findings, the relation between collative variables and pleasure or utility describes an inverted-U curve, in which both highly new, complex and surprising events and very well known, simple, anticipated events can be either threatening or boring, and thus unpleasant. Pleasure instead is maximal for intermediate measures of collative variables. This pattern is similar only in appearance to Wundt's findings, since here pleasure responds not to the *levels* but to the *changes* in the arousal. This means that there are two strategies for increasing the pleasantness and/or the interestingness of, say, an artwork. If the work is perceived as too challenging or new and complex, any device that increases the familiarity and the ability to appropriate it, also increases pleasure. On the contrary, if the artwork is perceived as so familiar as to be redundant, an increase of pleasure can be obtained through an increase of complexity, surprise, novelty, or ambiguity.

How does this model help us to understand the dynamic of storytelling?

The more obvious and perhaps the easiest way of increasing the power of attraction of an artwork is simply to increase the intensity or amount of either the ecological or the psychophysical variables it contains. In the case of a novel for example, this can be obtained through the increase of its fear, violence, sex, or romance content. It is true that these means are often used. There are however objective limits to the manipulation of these variables because, once they have been used to saturation point there is no next move. Suppose, for example, that in order to capture attention, a writer adds to the perceptual strength of a text by writing in CAPITAL LETTERS. This might work for a few phrases, but quickly exhausts its appeal.

Collative variables instead can be manipulated at will (Martindale 1990), through operations that involve – as noted – increasing or decreasing the complexity, variety, novelty, or ambiguity of an artwork.

Within this framework, then, we can understand that Booker's universal plots provide the basic ingredients of attraction through their recurrent emotional invocation of fear, love, danger, anger, jealousy, etc. But it is the infinitely many and subtly different ways in which these ecological variables are treated that makes a single piece of literature

enjoyable or not. It is the way in which suspense is played against its release, in which complexity is created and then mastered, in which paths of discovery are opened up and then reduced in number, in which conflicting responses are aroused and our interest and pleasure piqued.

This brings us back to my introductory observations on mysteries. The best are those that go beyond the formulaic exploitation of the basic plot, but meticulously wind and rewind threads of collative variables, each both familiar and new in its own way.

To press the point, what we find in mysteries is that all the markers of storytelling are laid bare. The plots and subplots are dominant with all the universal ingredients that attract: love, death, fear, revenge, the fight between the good and the bad, often (though not necessarily) with the final triumph of the good. Yet these basic familiar ingredients are knit together loosely enough to play freely with suspense, uncertainty, anticipation and surprise; indeed, with mystery. No other goals are involved or skills required. The story has an end in itself. This is the reason why mysteries are easily liked (and easily criticized). Indeed they represent a sort of template for all forms of storytelling which, in their play between variety and recognizability, novelty and familiarity, have always to introduce a degree of mystery (Kreitler and Kreitler 1972).

### *3. Aesthetic preferences: more recent findings*

Berlyne's approach and influence continued to be felt, after his premature death in 1976, well into the 'eighties and early 'nineties, yet his legacy suffered from the progressive abandonment in psychological studies of the concept of arousal and in particular the mistaken identification of his theory with theories of optimal arousal (Silvia 2006, Litman 2005, Petri and Govern 2004).<sup>4</sup> This phase too passed, and the core of his research, the discovery of collative variables and their relation to aesthetic preferences, have once again become a central reference point in more recent research. Indeed, in the past fifteen years there has been a resurgence of empirical studies in the psychology of aesthetic preference that tends to support his original findings.

---

<sup>4</sup> For a discussion of the legacy of Berlyne, with particular reference to the topic of aesthetics, see Konecni 1996.

Much of this new literature appropriately underscores that novelty, variety, and complexity are strictly subjective variables, relative to the cognitive, contextual processes that are involved in an aesthetic experience. Berlyne's view that novelty is pleasant within boundaries – neither too familiar, nor too new – is clearly context-dependent, though context was not fully explored by him.

It is the merit of recent appraisal theories then to have stressed that responses to art require specific cognitive appraisals without which the presence of collative features would not elicit aesthetic responses. Appraisals are the cognitive component of an emotion that evaluates how events relate to one's specific values, experience, and abilities (Silvia 2010). Yet, when appraisal research has been applied to the evaluation of the pleasantness/interestingness of an event, two appraisals have emerged as relevant, both very similar to Berlyne's collative variables. They are a novelty/complexity check – appraising how new information conforms to what is already known and expected – and a coping/potential check – whether the new, unfamiliar, complex thing identified by the first appraisal is understandable (Scherer 2001, Silvia 2005).<sup>5</sup>

The relevance of these two dimensions of an aesthetic experience – understanding and collative variability – is iterated in a number of recent experimental studies that tend to stress the working of either the novelty appraisal, or of the coping-potential appraisal as well as their interaction with the other ecological, content-related variables (Martindale 1984).

In some of these studies, for example, understanding is linked to the ability of the subject to decode the meaningfulness of an event. Through the manipulation of the information content of an event, in this case the viewing of abstract or semi-abstract paintings, where the representational element is low and complexity is high, it was found that both the meaningfulness and the hedonic value of a painting were affected (Russell 2003). Interestingly, when the images of the paintings shown to subjects were accompanied simply by their titles, as opposed to being without titles, the meaningfulness of the viewing increased but not the pleasure. This result showed that additional factors,

---

<sup>5</sup> Along these lines, Leder et al. 2004 propose a model of the different processing stages that are involved in an aesthetic experience. In this model cognitive and affective experiences are reciprocally linked so that the successful mastery of an artwork provides the intrinsic motivation to look for additional exposure of art in the future.

besides meaningfulness, affect the hedonic value of a painting, among them a painting's subject matter and skill, style and color, in other words, factors that could include other collative and psychophysical variables. Instead, both meaning and pleasure increased when, in addition to the title and artist's name, a brief explanatory description accompanied the painting,

Similarly, in (Reber et al. 2004), more than the objective features of a stimulus, aesthetic pleasure was shown to be a function rather of the perceiver's processing fluency, where fluency is primarily perceptual (i.e., the ease of identifying the physical identity of the stimulus) though it is applicable also to conceptual fluency, the mental operations concerned with the meaning of a stimulus. In this research, objectively identical stimuli were evaluated more positively when the processing of a stimulus was facilitated. This happens, in the case of visual stimuli for example, through symmetry, figure/ground contrast, and clarity, but also, in the subjective experience of these stimuli, through perceptual priming, and the duration and repetition of the presentation. Additionally, fluency was positively marked, i.e. pleasurable in itself.

The role of previous exposure and expertise is iterated also in a recent class of experiments where both typicality – familiarity – and novelty tend to predict aesthetic preferences, and they are also dependent on subjects' individual differences in expertise (Hekkert et al. 2003).<sup>6</sup>

Confirmatory findings come, interestingly, from the field of evolutionary psychology, and in particular from those studies that have focused on the formation of landscape preferences. I refer here to the contributions of Kaplan and Kaplan (1989), and Kaplan (1992) but also Orians and Heerwagen (1992).

Their studies showed that, when presented with sets of images of different natural settings, subjects tended systematically to prefer environments that provided for both understanding (through coherence and legibility) and exploration (through complexity and mystery). Settings, by contrast, which presented uniform and unmarked configurations such as desert-type environments (highly legible but poor in mystery), and

---

<sup>6</sup> They show in particular that experts were able to discriminate more finely between typicality and novelty, and were better able to recognize novelty in typicality (see also Hekkert et al. 1996). Correspondingly, Kozbelt and Serafin (2009) have shown that in rating the creativity of an artwork experts tend to give more weight to originality than non experts.

intricate, dense and impenetrable settings such as forests (high in mystery but low in legibility) were ranked low in preference orderings. The most consistently liked were savannah-type environments, wooded and protected, but having paths with ends unknown, open to be explored, holding the potential of new discoveries were one able to enter the actual scene (Bianchi 2012).

What these studies show then is that aesthetic pleasure resides in a shifting balance between the known and the unknown, the expected and the surprising, the certain and the uncertain. How, and how quickly, this balance shifts towards the unsatisfactoriness of either the repetitive or the obscure depends both on a person's accumulated knowledge and experience, and on the potential new knowledge an event can produce. The findings on landscape preferences seem to reveal exactly that it is the potential richness of explorable new paths that draws people towards one form of landscape rather than another.

These observations on openness to exploration lead to my next theme – what is the motivation that drives the exploration of the new? – and in particular to the studies that have analyzed the relationship between curiosity and interest.

#### *4. Diverive and specific curiosity*

Berlyne's approach to the psychology of art was an extension of his earlier studies of curiosity and exploration (Berlyne, 1960, 1965). It is with reference to his model of arousal and collative variability that he introduced the distinction, later to become the reference point of all studies on curiosity, between diverive and specific investigation.

Diverive exploration is a response to situations of low stimulus potential, those perceived as presenting low levels of novelty, variety, and complexity, and it corresponds to looking for entertainment and diversion, opening up to new experiences whatever their source (1960: 80). Specific exploration, by contrast, corresponds to situations of relatively high arousal potential, those perceived as complex and uncertain. Curiosity, for Berlyne, belongs to this second kind of situation, one that requires the specific, focused and interested exploration that might reduce an unpleasant state of tension (Berlyne 1978:

143-44).<sup>7</sup>

Hy.I.Day (1971,1981,1982), who developed several tests to measure both trait and state curiosity, translated Berlyne's framework of arousal potential into a model of specific exploration where curiosity is the response to environmental uncertainty and to the desire to reduce it. This view of curiosity as the exploratory response to unsettling uncertainty, as the need to close a knowledge gap, was maintained also in subsequent research (see in particular Loewenstein's (1994) seminal overview of curiosity studies).

More recently, however, several authors have begun to emphasize that curiosity cannot be limited to the reduction of the tension associated with yet unknown and uncertain activities and to stress more strongly its positive hedonic dimension.

Following Berlyne's distinction between diversive and specific exploration, some experimental researchers distinguish between a diversive curiosity that is directed to exploring situations that are novel and challenging regardless of source (Kashdan et. al. 2004, 293), and absorption, which corresponds to specific, focused curiosity and results in the use of skills and generates flow-like feelings. Contrary to the need-reduction theory, both these types of curiosity are felt as an intensely pleasant experience, supplying a sense of mastery and self-growing that is affected not only by external, but also by the internal stimuli of novelty and challenge (ibid.302). On the other hand, both types of curiosity were found to be negatively related to anxiety, boredom, and apathy, all of which seem to thwart exploration and learning (Kashdan 2009).

Litman's interest/deprivation (I/D) model of curiosity tries to integrate both views of curiosity, arguing that curiosity can involve pleasurable feelings as well as experiences of tension associated with knowledge deprivation. Developing scales for measuring curiosity that try to identify and distinguish between different types of curiosity, Litman (2003, 2005, 2008) has suggested that exploration induced by interest is associated with exploring new ideas for the simple joy of it, and is what motivates diversive exploration. Exploration induced by the elimination of deprivation on the other hand, reflects specific exploration aimed at solving problems for which the accuracy and relevance of information is of the utmost importance (2008: 1594).

---

<sup>7</sup> Additionally, Berlyne distinguished between extrinsic exploration the aim of which is instrumental to some other goal, and intrinsic exploration that is sufficient in itself, independently of its practical value (1960: 79).

What these studies show, then, is that curiosity, whatever its type, is strictly connected to exploration and knowledge, and the uncertainty that surrounds the search for new knowledge. Yet that we voluntarily exposure ourselves to this type of uncertainty tells us also that both types of curiosity – specific and diversive, problem solving and problem creating – represents a self-rewarding activity enjoyable in itself. In the felicitous phrase of Averill et.al. (1998), exploration is not only creative but re-creative.

There is, however, an element of curiosity that makes it problematic: the interest aroused by curiosity can be only a passing interest that does not persist over time. Curiosity indeed is often represented as a flickering emotion, one that vanishes as soon as the situation that caused it vanishes (Loewenstein 1994). The question then arises: what provides for sustainable curiosity? This question is not easy to answer and it is connected to the problem of the formation and development of interests. The implications of this problem – how a transient interest triggered by a specific situation grows into a more enduring personal interest – go beyond the scope of this paper and call into question aspects that are both normative – harmful versus beneficial interests – and practical, such as the influence of interest on learning and in different educational settings.<sup>8</sup> Yet my discussion of aesthetic preferences allows us to advance some conjectures on how to escape the flickering stage of curiosity.

### *5. Enduring interests*

Suggestions toward an answer to the problem of enduring interests come from what we have learned with reference to the formation of landscape preferences. Here we have seen that it is the potential richness of explorable new paths that becomes the criterion of selection among different forms of landscape. This means that not only actual exploration, but the promise of, or the openness to, further exploration, is at the basis of motivational preferences. Goods, experiences and activities whose characteristics help

---

<sup>8</sup> See Krapp 2002. The educational implications of the development of interests have been particularly stressed in the literature on intrinsic motivations, where interest and enjoyment sustain each other: the interest that a challenging activity creates is also the source of the enjoyment that prompts one to continue the activity. See Deci and Flaste 1996.

keep this promise, and allow for novelty to re-generate, and for knowledge to grow, are the natural candidates for sustained curiosity.<sup>9</sup>

It is not difficult to understand then why art and artworks have been the main object of study in the research on aesthetics and preferences on which I have drawn. Art, in all its various forms, provides the ever-changing challenges that invite additional exploration. Because of the internal complexity and mutual relatedness of art forms, art exposure begets further exposure and helps in establishing and stabilizing preferences. Indeed, earlier Berlyne (1974) noted how complexity sustains interest far beyond the mere pleasingness of less complex forms.

Yet there are many other goods and activities that partake of this characteristic of artworks; indeed, all goods and activities that we enjoy primarily for the challenges they provide in terms of novelty and complexity hold the potential to sustain curiosity.

Following Scitovsky 1992, I call these goods and activities creative, in the sense that they are created and used for the positive pleasure they deliver (Bianchi 1998b, 2003). They comprise all those goods that, as Scitovsky (1985, 1992) says, do not require an antecedent of pain (and its possible reduction) in order to be consumed.<sup>10</sup> In this regard they differ from so-called comfort goods, whose consumption instead is a means to something else, such as the pleasure of avoiding or eliminating a discomfort or a pain (e.g., taking a pill to get rid of a headache). Though this distinction can never be clear-cut and we will always be able to find goods that partake of both qualities or characteristics, still it has great explicative value for assessing the motivations and preferences that lie behind the choice of different sets of goods.

From conversation to art, from reading to walking, from listening to music to watching a movie, from intellectual activities to sports, it is through the active

---

<sup>9</sup> Note that this opens up possibilities for economics closed off by the famous but contentious 1977 article by George Stigler and Gary Becker “De Gustibus non est Disputandum”, in which they insisted that preferences are given and as stable as the Rockies. Instead, only choices can alter, and then only by following the promptings of change in one’s income or in relative prices. Their approach was intended to protect economics from the “easy” explanations of Sociology and Psychology, but this came at a cost. Novelty and change, so essential in humans to sustained satisfaction, were quite written off.

<sup>10</sup> They are, for Scitovsky, a source of enjoyable stimulation and correspond to Marshall’s activities sought for their own sake, Keynes’ animal spirits, Hawtrey’s creative goods, and Plato’s desire for knowledge. Plato in particular defined these activities as the *pure pleasures, which require no antecedent of pain*, See Bianchi 2012.

engagement with such goods and activities that interests emerge and develop into new interests (Krapp1994: 90). Thanks to their complexity, flexibility, and associative characteristics, creative goods are open to a variety of operations that provide both the cognitive and affective qualities conducive to new interests and exploration (Krapp 2002). This can happen at different levels: when, for example, specific sets of interests, such as the distinctive genres of music, or design styles, or cooking traditions that one loves, are mixed or separated, expanded or reduced, giving rise to new, stimulating and explorable opportunities. Or this can happen when entire domains of interest - such as literature or architecture or psychology – subdivide and migrate from one domain to another (as when art migrates into clothing, or architecture into tableware, or psychology into economics), and/or when they change meaning or recombine their internal order (see Bianchi 1998a).<sup>11</sup>

All these combinatory possibilities exploit the cumulative dimension of creative activities, whose many complementary uses can be transferred advantageously from one employment to another, thus producing innovation and change. This might explain why in the case of these activities repetition and exposure do not erode pleasure but, playing on collative variability through operations that require both diversive and specific curiosity, allow for new interests to arise and persist over time.

## *6. Back to storytelling*

I began with storytelling because it is the perfect example of a creative activity, an activity that, thanks to its internal variety, unexpectedness, and novelty, can be enduringly stimulating. Stories are the landscapes of imagination and knowledge.

Stories can have secondary aims, moral or educational, or informative, yet the aesthetic pleasure we derive from reading, telling, viewing stories is linked to the intrinsic rewards generated by both diversive and specific exploration. Through stories we voluntarily enter and discover new worlds of events connected together by paths as yet

---

<sup>11</sup> The example of Chef Julia Child is instructive. Through her hugely successful Boston Public TV show of the nineteen sixties and seventies, “The French Chef”, she taught viewers to regard cooking as an enjoyable mini-adventure rather than inescapable drudgery, and transformed eating from being an essential physical need into a creative activity in itself, full of potential for fun and variety.

unknown. Once inside a story, exploration becomes specific. The ups and downs of the unfolding of new events, with their apparent resolutions and climaxes so well described by Booker, provide the complexity mixed with novelty that keeps our attention and specific curiosity alive.<sup>12</sup>

From children's stories (Rigol 1994) to more sophisticated adult plots, they are tales of the transformative power of exploration (Bianchi 2012).

Yet the fact that plots conform to contents that are universally shared is important too. They provide that degree of familiarity and redundancy that make the story translatable into one's own feelings, emotions, and passions. They anchor the emotional content to cognition and recognition.

Recent research on text-based curiosity and learning provides confirmatory findings. Three elements seem to converge in making a text engaging and interesting (Wade 1992). The first is the inherent interestingness of the content, whose basic ingredients revolve around fear, death, destruction, power, money, romance, sex (one can easily recognize the elements in Booker's basic plots and Berlyne's ecological variables). The second is unexpectedness, the ability of the text to provide unusual and novel twists reflecting that component of interest linked to Berlyne's collative variables (see Scherer et al. 2001). The third is personal relatedness, the ability of the text to involve one, through the creative combination of the first two elements, both emotionally and cognitively<sup>13</sup>.

Storytelling then has told us also a story of how preferences can form, stabilize, and change again. There is much still to be learned about the working of preferences.<sup>14</sup>

At the same time we are far from the view, commonly held in both economics and psychology, that little can be said about tastes. That common view leaves us with only

---

<sup>12</sup> Earl and Potts 2013 alert us also to an additional feature that storytelling can perform, that of keeping attention alive in the acquisition of knowledge. As Kelly 1955 showed, they say, decoding sensory information involves the creation of ordering and classificatory patterns. Yet human attention and processing abilities can be kept alive only if incoming sensory inputs continue to pose a challenge, otherwise they turn off (ibid.:155).

<sup>13</sup> Nevertheless, for both ease of comprehension and prior knowledge, this correlation is not linear: a text that is too easy or too well known does not excite interest, nor does a text that shows the opposite characteristics (Silvia 2006).

<sup>14</sup> Earl 2011 discusses how texts from literature and other creative arts (anecdotes, vignettes and first of all novels) tend to show, at the core of their narratives, the complexity and gripping nature of decision-making. This complexity goes far beyond the pure calculus-based dimension of traditional economic theory, a feature that economic theory should not overlook.

two alternatives: to place tastes beyond the reach of scientific inquiry because of their irreducible subjectivity or, in the manner of Stigler and Becker, to reduce preferences to basic human needs so that they can be assumed to be objective and stable.

What experimental research on aesthetic preferences and curiosity has taught us instead is that individual preferences, though never entirely predictable, because exploration and change is what keeps them alive, are nevertheless understandable and analysable, because the change that appeals is never random, but within the recognizable boundaries of one's own accumulated knowledge and experience.

This new approach to preferences has analytical implications that go beyond the still important problem of consumer choice and behaviour. It involves the social dimension of consumption, where the love for novelty is expressed in the cycles of fashion, the way work can be organized in order to be more engaging, the distribution of work and leisure over a life time, education, as mentioned earlier and, as might be guessed, individual and social well-being.<sup>15</sup>

### *Conclusions*

The growth and pervasiveness of today's social media provide ever more new means for telling stories. Stories can now use words, sounds, and above all images and videos that change and multiply the forms in which they are told and received. They operate within an increasingly interactive dimension – blogs, social networks, webpages, digital narratives, collaborative stories – and this sharedness enables new genres and subgenres to proliferate.

Under the influence of these new media the traditional markers of storytelling, such as coherence, temporality, and a teleological structure of complications and resolutions, count for less. Stories become fragmented, immediate, instantaneous flashes of emotions. Full-length narratives are replaced by anecdotes, jokes, comments, with gaps left for the community to follow, share, and fill in.

Social media then make visible what we have seen operating in my discussion of the fascination of storytelling. Stories not only remain the most pervasive genre people

---

<sup>15</sup> See on this point Pugno 2012.

use to communicate with, either online (thus publicly) or in semi-public domains (Page 2011 and 2012, and Lundby 2009), but they are also interactive. The receiver is part of the construction of the ongoing story. This aspect was hidden in the traditional forms – written or visual – of storytelling, where the receiver might seem to be just a passive actor in the story. We are learning, however, that even in their classical forms, narratives, because of their complexity and variety, have an open-endedness that is left to the reader to explore and interact with. Storytelling is not only re-creative but also creative.

### *References*

- Averill, J. R., Stanat, P., More, T. (1998). Aesthetics and the environment. *Review of General Psychology*, 2, 153-174. <http://psycnet.apa.org/journals/gpr/2/2/153/>
- Barkow, J.H., Cosmides, L. and Tooby, J. (1992). Eds. *The Adapted Mind. Evolutionary Psychology and the Generation of Culture*. Oxford: Oxford University Press.
- Berlyne, D. E. (1960). *Conflict, arousal, and curiosity*. New York: McGraw-Hill.
- Berlyne, D. E. (1965). *Structure and direction in thinking*. New York: Wiley.
- Berlyne, D.E. (1971). *Aesthetics and Psychobiology*. New York :Appleton Century Crofts.
- Berlyne, D.E., Madsen K.B. (1973). Eds. *Pleasure, Reward, Preference*. New York: Academic Press.
- Berlyne, D. E. (1974). Ed. *Studies in the new experimental aesthetics. Steps toward an objective psychology of aesthetic appreciation*, Washington, DC: Hemisphere.
- Berlyne, D.E. (1978). Curiosity and Learning. *Motivation and Emotion*, 2, 2, 97-175. <http://psycnet.apa.org/psycinfo/2005-10493-001>
- Bianchi, M. (1998a). *Consuming novelty: Strategies for producing novelty in consumption*. *Journal of Medieval and Early Modern Studies*, 28 (1), 3-18.
- Bianchi, M. (1998b). *Ed. The Active Consumer Novelty and Surprise in Consumer Choice*. London: Routledge.

- Bianchi, M. (2003). A questioning Economist: Tibor Scitovsky's attempt to bring joy into economics. *Journal of Economic Psychology*, 24, 391-407.  
[http://econpapers.repec.org/article/eeejoepsy/v\\_3a24\\_3ay\\_3a2003\\_3ai\\_3a3\\_3ap\\_3a391-407.htm](http://econpapers.repec.org/article/eeejoepsy/v_3a24_3ay_3a2003_3ai_3a3_3ap_3a391-407.htm)
- Bianchi, M. (2008). Time and Preferences in Cultural Consumption. In Hutter M. and D. Throsby (Eds.) *Value and Valuation in Art and Culture* (pp. 236-260). Cambridge: Cambridge University Press.
- Bianchi, M. (2012). Curiosity, exploratory behavior and open-ended choices, Keynote address at the Conference: *How to bring joy into economics. Revisiting Tibor Scitovsky (1910-2002)* Gaeta, June 26-27, 2012.
- Booker, C. (2004). *The seven basic plots: why we tell stories*. London: Continuum.
- Day, H. I. (1971). The measurement of specific curiosity. In Day et al. 1971 (pp. 99–112).
- Day, H. I., Berlyne, D. E. Hunt D. E. (1971). Eds. *Intrinsic motivation: A new direction in education*. New York: Holt, Rinehart & Winston.
- Day, H. I. (1981). Ed. *Advances in intrinsic motivation and aesthetics*. New York: Plenum Press.
- Day, H.I. (1982). Curiosity and the interested explorer. *NSPI Journal*, May, 19-22.  
<http://onlinelibrary.wiley.com/doi/10.1002/pfi.4170210410/abstract>
- Deci, E., with R. Flaste (1996). *Why we do what we do: understanding self-motivation*. New York: Penguins Books.
- Earl, P. (2011) From anecdotes to novels: Reflective inputs for behavioural economics. *New Zealand Economic Papers*, 45 (1–2 ): 5–22.  
[http://econpapers.repec.org/article/tafnzecpp/v\\_3a45\\_3ay\\_3a2011\\_3ai\\_3a1-2\\_3ap\\_3a5-22.htm](http://econpapers.repec.org/article/tafnzecpp/v_3a45_3ay_3a2011_3ai_3a1-2_3ap_3a5-22.htm)
- Earl P., Potts, J. (2013) The creative instability hypothesis. *Journal of Cultural Economics*, 37:153–173.  
[http://econpapers.repec.org/article/kapjculte/v\\_3a37\\_3ay\\_3a2013\\_3ai\\_3a2\\_3ap\\_3a153-173.htm](http://econpapers.repec.org/article/kapjculte/v_3a37_3ay_3a2013_3ai_3a2_3ap_3a153-173.htm)
- Fechner, G. T. (1966/1860). *Elements of psychophysics*. New York: Holt, Rinehart and Winston.
- Hekkert, P., & van Wieringen, P. C. W. (1996). Beauty in the eye of expert and non-expert beholders: A study in the appraisal of art. *American Journal of Psychology*, 109, 389-407.  
<http://www.jstor.org/discover/10.2307/1423013?uid=26293&uid=3737864&uid=2129&uid=2&uid=70&uid=3&uid=26292&uid=67&uid=62&uid=5910216&sid=21104257401043>

- Hekkert, P., Snelders, D., & van Wieringen, P. C. W. (2003). Most advanced, yet acceptable: Typicality and novelty as joint predictors of aesthetic preference in industrial design. *British Journal of Psychology*, 94, 111– 124.  
<http://www.ncbi.nlm.nih.gov/pubmed/12648393>
- Hiltunen, A. (2002). *Aristotle in Hollywood: The Anatomy of successful storytelling*. Bristol, UK: Intellect Books.
- Hogarth, W. (1753/1955). *The analysis of beauty*, edited by J.Burke, Oxford: Clarendon Press.
- Kaplan, R., and Kaplan, S. (1989). *The experience of nature: a psychological perspective*. Cambridge: Cambridge University Press.
- Kaplan, S. (1992). “ *Environmental Preferences in a Knowledge-seeking, Knowledge-using Organism*”, in: Barkow et al. 1992 (pp. 581-59).
- Kelly, G. (1955). *The psychology of personal constructs*. New York: W.W. Norton
- Kashdan, Todd B. Rose, Paul & Fincham Frank D. (2004). Curiosity and Exploration: Facilitating Positive Subjective Experiences and Personal Growth Opportunities, *Journal of Personality Assessment*, 82 (3), 291-305.  
<http://toddkashdan.com/articles/JPACEI.pdf>
- Kashdan, T.B. (2009). *Curious? Discover the missing ingredient to a fulfilling life*. New York: William Morrow.
- Krapp, A. (1994). Interest and curiosity. The role of interest in a theory of exploratory actions. In Keller, H., Schneider, K., Henderson B. (Eds.) *Curiosity and exploration* (pp. 79-100). Berlin: Springer-Verlag.
- Kreitler, H. and Kreitler, S. (1972). *Psychology of the arts*. Durham, N.C: Duke University Press.
- Krystal, A. (2012). Easy writers. Guilty pleasures without guilt. *The New Yorker*, May 28, 81-84.  
[http://www.newyorker.com/arts/critics/atlarge/2012/05/28/120528crat\\_atlarge\\_krystal](http://www.newyorker.com/arts/critics/atlarge/2012/05/28/120528crat_atlarge_krystal)
- Konecni V. J. (1996). Daniel E. Berlyne (1924-1976): Two decades later. *Empirical Studies of the Arts*, 14 (2), 129-42. <http://psycnet.apa.org/psycinfo/1997-07206-001>
- Kozbelt, A. and J. Serafin (2009). Dynamic Evaluation of High- and Low-Creativity Drawings by Artist and Non-Artist Raters. *Creativity Research Journal*, 21, 4, 349-60. <http://psycnet.apa.org/journals/aca/5/4/350/>

- Leder, H., Belke, B., Oeberst, A., & Augustin, A. (2004). A model of aesthetic appreciation and aesthetic judgments. *British Journal of Psychology*, 95 (Nov.), 489-508.  
<http://www.cognitivefluency.com/research/aesthetic.appreciation.judgements.pdf>
- Litman J. A & Spielberger Charles D. (2003). Measuring Epistemic Curiosity and Its Diverisive and Specific Components. *Journal of Personality Assessment*, 80 (1), 75-86. <http://drjlitman.net/wp-content/uploads/2013/11/Litman-Spielberger-2003.pdf>
- Litman, J. A (2005). Curiosity and the pleasures of learning: Wanting and liking new information. *Cognition and Emotion*, 19 (6): 793-814.  
<http://isites.harvard.edu/fs/docs/icb.topic951139.files/curiosityPleasureOfLearning-litman.pdf>
- Litman, J.A. (2008). Interest and deprivation factors of epistemic curiosity. *Personality and Individual Differences*, 44, 1585–1595.  
<http://www.sciencedirect.com/science/article/pii/S0191886908000275>
- Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, 116, 75–98.  
<http://www.cmu.edu/dietrich/sds/docs/loewenstein/PsychofCuriosity.pdf>
- Lundby, K. (2009). *Digital storytelling, mediatized stories: self-representations in new media*, New York: P. Lang Publisher.
- Martindale, C. (1984). The pleasures of thought: A theory of cognitive hedonics. *The Journal Mind and Behavior*, 5, 49-80. <http://psycnet.apa.org/psycinfo/1985-02765-001>
- Martindale, C. (1990). *The clockwork muse: the predictability of artistic change*. New York: Basic Books.
- Montesquieu, C. (1757/1993). *Essai sur le gout*. Paris: Armand Colin.
- Nell, V. (1988). *Lost in a Book. The Psychology of Reading for Pleasure*. New Haven: Yale University Press.
- Orians, G.H. and Heerwagen, J.H. (1992). Evolved Responses to Landscapes. In Barkow et al. 1992 (pp. 555-579).
- Page, R.T. and Bronwen T. (2011). Eds. *New narratives: stories and storytelling in the digital age*. Lincoln: University of Nebraska Press.
- Page, R.T. (2012). *Stories and social media: identities and interaction*. New York: Routledge.

- Petri, H. L., & Govern, J. M. (2004). *Motivation: Theory, research and applications* (5th ed.). Belmont, CA: Thomson/Wadsworth.
- Pugno, M. (2012) "Scitovsky's theory of well-being", *History of Economic Thought and Policy*, 2: 35-56.  
[http://econpapers.repec.org/article/fanspespe/v\\_3ahtml10.3280\\_2fspe2012-002002.htm](http://econpapers.repec.org/article/fanspespe/v_3ahtml10.3280_2fspe2012-002002.htm)
- Reber R., Schwarz N., Winkielman P. (2004). Processing Fluency and Aesthetic Pleasure: Is Beauty in the Perceiver's Processing Experience?. *Personality and Social Psychology Review*, 8 (4), 364-382.  
<https://bora.uib.no/bitstream/handle/1956/594/?sequence=1>
- Rigol, R. M. (1994). Fairy tales and curiosity. Exploratory behavior in literature for children or the futile attempt to keep girls from the spindle. In Keller, H., Schneider, K., and B. Henderson (Eds.) *Curiosity and exploration* (pp.15-29). Berlin: Springer-Verlag.
- Russell, P. A. (2003). Effort after meaning and the hedonic value of paintings. *British Journal of Psychology*, 94, 99-10.  
<http://www.ncbi.nlm.nih.gov/pubmed/12648392>
- Scitovsky, T. (1992/1976). *The Joyless Economy: The Psychology of Human Satisfaction*, revised edition. Oxford: Oxford University Press.
- Scitovsky, T. (1985). How to bring joy into economics. In Scitovsky, T. (1986) *Human Desires and Economic Satisfaction. Essays on the Frontiers of Economics* (pp. 183-203). New York: New York University Press.
- Silvia, P.J. (2005). Emotional responses to art: From collation and arousal to cognition and emotion. *Review of General Psychology*, 9 (4), 342-357.  
<http://psycnet.apa.org/psycinfo/2006-01036-003>
- Silvia, P. J. (2006). *Exploring the psychology of interest*. New York: Oxford University Press.
- Silvia, P. J. (2010). Confusion and interest: The role of knowledge emotions in aesthetic experience. *Psychology of Aesthetics, Creativity, and the Arts*, 4, 75–80.  
<http://psycnet.apa.org/journals/aca/4/2/75>
- Scherer, K. R., Schorr, A., Johnstone T. (2001). Eds. *Appraisal processes in emotion: theory, methods, research*. New York: Oxford University Press.
- Stigler, G. J. and G.S. Becker (1977). De Gustibus non est Disputandum. *American Economic Review*, 67, 76-90.  
[http://econpapers.repec.org/article/aeaacrev/v\\_3a67\\_3ay\\_3a1977\\_3ai\\_3a2\\_3ap\\_3a76-90.htm](http://econpapers.repec.org/article/aeaacrev/v_3a67_3ay_3a1977_3ai_3a2_3ap_3a76-90.htm)

- Wade, S. E. (1992). How interest affects learning from text. In Renninger, K. A., Hidi, S, and A. Krapp (Eds.) *The Role of interest in learning and development* (pp. 255-278). Hillsdale, N.J.: Erlbaum Associates.
- Wilson, E. (1944). Why do people read detective stories?. *The New Yorker*, Oct 14, 78-84.  
[http://www.newyorker.com/archive/1944/10/14/1944\\_10\\_14\\_078\\_TNY\\_CARDS\\_000016796?currentPage=all](http://www.newyorker.com/archive/1944/10/14/1944_10_14_078_TNY_CARDS_000016796?currentPage=all)
- Wilson, E. (1945a). Who cares who killed Roger Ackroyd? A second report on detective fiction. *The New Yorker*, Jan. 20, 59-66.
- Wilson, E. (1945b). Mr.Holmes, They were the footprints of a gigantic hound!. *The New Yorker*, Feb.17, 73-78.
- Woodside, A. G., Sood, S., & Miller, K. (2008). When consumers and brands talk: Story-telling theory and research in consumer psychology and marketing. *Psychology & Marketing*, Vol. 25(2): 97–145  
<http://onlinelibrary.wiley.com/doi/10.1002/mar.20203/full>
- Wundt, W. M. (1969/1896). *Principles of physiological psychology*, London: Sonnenschein and Co.

Please note:

You are most sincerely encouraged to participate in the open assessment of this discussion paper. You can do so by either recommending the paper or by posting your comments.

Please go to:

<http://www.economics-ejournal.org/economics/discussionpapers/2014-23>

The Editor