



DEPARTMENT OF ECONOMICS

UNIVERSITY OF MILAN - BICOCCA

WORKING PAPER SERIES

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Happiness: Facts and Fiction**

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No. 167 – July 2009

Dipartimento di Economia Politica  
Università degli Studi di Milano - Bicocca  
<http://dipeco.economia.unimib.it>

# Television Viewing, Satisfaction and Happiness: Facts and Fiction

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June 2009

## Abstract

Despite the increasing consumption of new media, watching television remains the most important leisure activity worldwide. Research on audience reactions has demonstrated that there are major contradictions between television consumption and the satisfaction obtained from this activity. Similar findings have also emerged in the relationship between TV consumption and overall well-being. This paper argues that television viewing can provide a major example where consumption choices do not maximize satisfaction. We review the evidence on the welfare effects of TV consumption choices, focusing on two complementary dimensions: consumption satisfaction and overall well-being. Within each of these two dimensions, we consider both absolute and relative over-consumption, referring to quantity and content of television viewing, respectively. We find that research in different social sciences provides evidence of overconsumption in television viewing. The relevance of these findings for consumption of new media is discussed in the conclusions.

Keywords: satisfaction, rationality, media consumption, television.  
JEL Classification: D12, D91, I31, J22.

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## 1. Introduction

Even after the advent of the Internet, watching television remains the most important leisure activity worldwide. Average daily viewing time across the world was 187 minutes in 2008 (Mediametrie, 2008), as opposed to 183 in 2004. In Europe, while the audience is more fragmented among the growing number of channels (digital, satellite and online TV), the figures remain very high (215 minutes in 2008, unchanged from 2004). IP (2007) estimates that the average daily viewing time in Europe was 225 minutes in 2007, against 188 minutes in 1993. These figures imply that, by the age of 75, an average European has spent about 12 full years watching television out of approximately 50 waking years, assuming an average of 8 hours of sleep per day.

If people spend so much time watching TV, why do they do it? And, more importantly, is it good for them? Within a framework of rational choice, viewers should always be able to choose for their best. In media studies, this view is brought forward by the theory of uses and gratifications (Blumler and Katz, 1974). The basic idea of this theory is that people use the media to get specific gratifications. Therefore, a medium will be used more when the existing motives to use it lead to more satisfaction. Similarly, in economics if people choose to spend so much time watching television, by revealed preferences, it must be in their own interest. However, the theory of revealed preferences has been challenged by a new wave of works in economics and psychology. It has been argued that consumers frequently “act against their own better judgment, engaging in behavior that is often regretted after the fact and that would have been rejected with adequate forethought” (Hoch and Loewenstein, 1991).

In recent decades, the existence of relevant contradictions between consumption choices and preferences has received increasing attention in the social sciences. Several instances of time-inconsistent preferences and self-control problems have been emphasized in many fields of human behaviour. Gruber and Mullainathan (2002), for example, have shown how cigarette consumers are prone to overconsumption to the point that, when they are not under the need of smoking, a relevant number say they would vote in favour of raising taxes on tobacco. Cutler et al. (2003) and Shapiro (2005) show similar phenomena in food consumption. From these studies it emerges that there are fields of consumption in which subjects are systematically not satisfied with their choices, but nonetheless keep making them. Behavioural economics started to distinguish between “choice utility”, as revealed by choices, which are prone to mistakes in maximizing utility, and “true utility” as revealed by hedonic measures, such as self-reported happiness or life satisfaction (Gul and Pesendorfer, 2005; Samuelson and Swinkel, 2006).

In this paper we examine if and how these mechanisms of choice inconsistency can be applied to television consumption choices. We review the existing empirical literature on the effects of television viewing on individual welfare in sociology, economics and psychology to assess the hypothesis that television viewing provides a major example of over-consumption.

In order to map the large body of evidence on these issues, we organize the literature review by means of a taxonomy of different dimensions of overconsumption in television viewing. The taxonomy is built on two dichotomous dimensions: the type of satisfaction

considered (consumption satisfaction versus overall well-being) and the type of overconsumption (quantity versus quality). By interacting these two dimensions we obtain four major areas of effects of TV viewing on satisfaction: time choice effects, content choice effects, life-style effects and cultural effects. Notwithstanding the diversity of problems that pertain to the four areas, we argue that a theory of choice inconsistencies based on overconsumption is able to explain and unify much of the evidence we have gathered.

In the conclusions, we point out the areas in which more research is needed to explain overconsumption and inconsistencies in television consumption. We also discuss the consequences of the findings for media theories and public policies. Finally, we extend the discussion to media in general and, in particular, to new media, where the possibilities for overconsumption choices are even greater than in the case of television.

## **2. A taxonomy of TV overconsumption effects**

Research on the effects of TV watching on welfare is characterized by a number of different approaches and objectives. We organize this literature review by means of a taxonomy that allows us to classify the different works and findings in different categories of issues and themes. We use two dichotomic dimensions to build our taxonomy (Table 1): the level at which inconsistencies can be observed (consumption satisfaction or life satisfaction); the quantity or the quality of watching as key aspects of the problems observed.

We start by considering the type of satisfaction to which overconsumption can be related. Effects on consumption satisfaction refer to the immediate effects of TV consumption on consumers' utility. Negative effects on satisfaction, in particular, occur when people regret the quantity or quality of TV viewing. These effects emerge almost immediately and the individual is generally aware of the sub-optimality of TV consumption. Effects on life satisfaction refer to viewers' overall well-being, measured for instance as life satisfaction or happiness. These are effects which are often connected with a habit of heavy TV viewing. As a consequence, they may not be perceived by the individuals, but can nevertheless significantly influence their quality of life.

The second dimension discriminates between two kinds of overconsumption: absolute and relative. In the first case, the focus is on quantity. Absolute overconsumption has to do with the amount of time spent watching television, irrespective of program contents. Relative TV overconsumption occurs instead when someone watches too much of the wrong content: it is not the total quantity which is relevant in this case, but how time is organized among a heterogeneous offer of contents.

By matching the two dimensions, we obtain four areas of analysis:

1. Time choice effects: the impact of the quantity of television viewing on consumption satisfaction (e.g. regret for having lost time that could have been spent more productively, sense of passivity, lower concentration, etc).
2. Content choice effects: the impact of television contents on consumption satisfaction (e.g. dissatisfaction with non-optimal allocation of time among TV channels and programs).

3. Lifestyle effects: the impact of the quantity of television viewing on well-being in the long run (e.g. less social relations, more passive attitude, higher risk of obesity, etc.).
4. Cultivation effects: the impact of television contents on life satisfaction (e.g. through “cultivation” effects, such as higher materialism or anxiety with respect to safety )

We can observe that the first column of Table 1 presents problems that people explicitly report in relation to their consumption choices. In the second column, the negative effects on welfare are not usually put in relation to TV consumption by the respondents, but this connection can be obtained through data analysis.

Table 1. A taxonomy of issues in research on effects of TV watching on satisfaction

	Consumption Satisfaction: Utility, Satisfaction	Well-being: Life satisfaction, Happiness
Absolute Overconsumption: Quantity	TIME CHOICE	LIFESTYLE
Relative Overconsumption: Quality	CONTENT CHOICE	CULTIVATION

In the next paragraphs we will discuss the evidence relating to each of these four areas. We will then search for common denominators on which to base a theory of TV consumption inconsistencies.

### 3. Consumption satisfaction

It is a common experience to hear or participate in negative comments about specific television programs which would either distract, disgust or harm viewers and users. These contents are indeed very successful in terms of audience size.

Research on audience reactions to media content has repeatedly shown that there are relevant inconsistencies between the size of the audience of television programs and their appreciation (Aske Ltd, 1973 and 1975, Television Audience Assessment, 1984, Gunter and Wober 1992, Gunter, 2000) and between perceived quality and appreciation (Wober, 1990; Gunter, 2000; Ishikawa, 1996; Gunter and Wober, 1992; Leggatt, 1996; Weimann et al., 1992).

This evidence has been generally explained with reference to the many circumstances that affect the size of a programme audience, such as “the time of the day, the season of the year, the availability of viewers and the appeal of competitive offerings” (Gunter and Wober 1992, p. 58). Another common explanation of this inconsistency points to “social

desirability biases”. Ang (1985), for example, argues that people tend to criticise television programs and to share their feelings with others because this provides them with a social bond. McQuail (1997, 58) proposes another possible explanation: quality measures can easily vary, independently of ratings, because television programs intended for a minority taste can be seen by a large audience that has inappropriate expectations and therefore will be particularly disappointed.

These explanations remain within a framework of a “rational audience”: they all assume that “in general [...] people watch what they like on television and like what they watch” McQuail (1997, 58). In this perspective, viewers or users would always be able to choose for their best, so that the inconsistencies between viewing choices and appreciation would derive either from a problem in measuring appreciation or from practical limitations in viewing.

In this section we show that the assumption of a “rational viewer“ is challenged by the empirical evidence, even without considering extreme situations such as those defined as “TV addiction” (McIlwraith, 1998). We start by reviewing the evidence on satisfaction with respect to the quantity of television viewing (section 3.1). We then show that similar mechanisms also emerge with respect to satisfaction for the contents of TV consumption (section 3.2).

### 3.1 Absolute overconsumption

One of the classical examples of sub-optimal choice comes from the philosopher David Gauthier, who takes TV consumption as an example. Gauthier (1986) considers the case of someone who expresses a preference for reading philosophy over watching TV, but night after night watches TV with her philosophy books closed beside her. This is just one example of a possible challenge for revealed preferences theory in TV watching.

Research has investigated TV overconsumption with a variety of methodologies. The main questions to answer are if, why and how people systematically watch more TV than they would like to. When it becomes pathological, this problem has been often defined as TV addiction. After this term was introduced in the popular press, its use increased in the 1980s among parents’ associations, educators, and journalists (Milkman and Sunderwirth, 1987; Winn, 1987). Academic research on TV addiction compared it to other forms of addiction, in order to assess if TV viewing can match the psychiatric criteria for addictions. For McIlwraith et al. (1991): “television addiction can be defined as heavy television watching that is subjectively experienced as being to some extent involuntary, displacing more productive activities, and difficult to stop or curtail”. In this definition, TV addicted viewers are described as being somewhat aware of their problem. If this is true for pathological TV addicts, the same has been reported by surveys on the public at large. Smith (1986) reported that 65% of respondents surveyed believed TV was addictive. McIlwraith (1990) reported that 70% of a sample of university students believed television was addictive. This belief is also widespread among educators and parents.

Not only people abstractly believe that TV addiction exists, but a relevant percentage also seems to personally experience problems in controlling TV consumption. Gallup polls

(1992 and 1999) report that two out of five adult respondents and 7 out of 10 teenagers said they spent too much time watching TV (Kubey and Csikszentmihalyi, 2002).

The level of TV overconsumption also depends on the characteristics of the offer. In particular, while according to standard economic theory a wider choice set should increase users' utility, more TV channels are instead reported to lower users' satisfaction with respect to the quantity of TV watching. A study on the introduction of cable TV in Israel (Weimann, 1996) found that, with cable TV, there was a significant increase in the percentage of viewers agreeing to the statements "I often watch television more than I intend to" (28% before cable introduction and 41% one year after) and "watching television is often a waste of time" (24% before cable introduction and 36% after)". A similar conclusion is reported in Benesch et al. (2006).

A possible description of the mechanisms underlining this contradiction comes from an interesting study by Kubey and Csikszentmihalyi (1990). The authors studied what people do in different moments of the day and the evolution of their mood using the Experience Sampling Method (ESM). Participants in the study carried a beeper that signalled them randomly six-eight times a day over the period of a week. When the participants heard the beep, they had to write in a scorecard what they were doing and how they were feeling (Kubey and Csikszentmihalyi, 2002). With this methodology, the authors observed that people reported feeling relaxed and passive both before and during TV watching, but that the sense of relaxation ended quickly when they stopped watching TV, while the feelings of passivity and lowered alertness continued. The subjects also reported having more difficulty concentrating after viewing. This did not happen after reading, engaging in hobbies or playing sports. On the contrary, after these activities people reported improvements in mood. This can explain the mechanism by which people watch more TV than they would like. As the authors say: "The association is positively reinforced because viewers remain relaxed throughout viewing, and it is negatively reinforced via the stress and dysphoric rumination that occurs once the screen goes blank again." In this way, one has to keep watching in order to keep feeling relaxed (Kubey, 1984; Kubey and Csikszentmihalyi, 1990a).

Experimental psychologists have tried to explain how viewers' attention can be attracted and maintained through physiological arousal. This is very important because it represents a possible explanation of why consumption which does not result in satisfaction has often been found in media research. Selective attention is the first step needed to process media contents. But for commercial media, in a panorama of a multiplication of information sources, gaining and maintaining attention becomes the most important phase in the relationship between a commercial broadcaster and a receiver, given that success is measured in terms of quantity of viewers-listeners-users. As McQuail points out, this is the case when "[...] the primary aim of mass media is neither to transmit particular information nor to unite the public in some expression of culture, belief or values, but simply to catch and hold visual attention." (Mc Quail, 2005, p. 71).

For this reason, as discussed in Zhou (2005), great efforts have been made to understand the rules of attention and to adapt them as the world of the media was profoundly changing. Arnold (1970) originally suggested, with the concept of "appraisal", that people immediately, automatically, and almost involuntarily evaluate anything that they encounter.

Similarly, Kubey and Csikszentmihalyi (2002) link attraction for TV to a biological “orienting response”:

“First described by Ivan Pavlov in 1927, the orienting response is our instinctive visual or auditory reaction to any sudden or novel stimulus. It is part of our evolutionary heritage, a built-in sensitivity to movement and potential predatory threats. Typical orienting reactions include dilation of the blood vessels to the brain, slowing of the heart, and constriction of blood vessels to major muscle groups. Alpha waves are blocked for a few seconds before returning to their baseline level, which is determined by the general level of mental arousal. The brain focuses its attention on gathering more information while the rest of the body quiets. In 1986 Byron Reeves of Stanford University, Esther Thorson of the University of Missouri and their colleagues began to study whether the simple formal features of television—cuts, edits, zooms, pans, sudden noises—activate the orienting response, thereby keeping attention on the screen. By watching how brain waves were affected by formal features, the researchers concluded that these stylistic tricks can indeed trigger involuntary responses and “derive their attentional value through the evolutionary significance of detecting movement [...]” (Kubey and Csikszentmihalyi, 2002)

Miller (2006) claims that attention is a strategy developed by humans for dealing with new stimuli, so that capacity is not overloaded. This framework suggests that limitations occur when mental resources are exhausted. And in the current media panorama mental resources are continually exhausted with a massive and ever growing quantity of stimuli.

The spread of the remote control in the 1970s and the possibility brought by new media to select and change content instantly, extended the possibilities of instinctive choices during TV viewing. Lang et al. (2005) argue that “in recent years, in order to keep viewers on channel in the multi-channel remote control environment, television producers have changed the structure and content of their messages” (Bellamy and Walker, 1996). Messages have become shorter and faster (Bellamy and Walker, 1996; Eastman and Newton, 1995), and more shorthand visual techniques are used (Bollier, 1989, Eastman and Neal-Lunsford, 1993).

Perse and Ferguson (1997) found that the “remote control’s greatest benefits may not be associated with selecting specific programs” (p. 326). Instead of active viewing, changing channel seems to reflect a lack of involvement with the program, resulting in more “unplanned exposures”. This is particularly significant as, on the contrary, technologies connected to “voluntary exposures”, like the VCR and DVR, were found to enhance viewers’ satisfaction and enjoyment (Perse and Ferguson, 1993; Ferguson and Perse, 2004).

A way to interpret this evidence is that TV viewers are attracted by TV contents, but tend to miscalculate their costs, to the point that they often regret the amount of watching. Especially when consumption is not explicitly voluntary, immediate gratifications can coexist with successive dissatisfaction. Practises of overconsumption can derive from a miscalculation of gratification levels or from a weakness of will. In this perspective, TV consumption can constitute a phenomenon of “temptation”.

### 3.2 Relative overconsumption

A second form of overconsumption in TV viewing is of a relative nature and is related to the contents that viewers choose within their watching time. In this case overconsumption



refers to the tendency to allocate more time than desired to certain kinds of programs rather than others.

A first and important piece of evidence comes from decades of researches on audience reaction to TV contents. As we mentioned in the introduction, it is widely accepted that sometimes audience size and appreciation measures do not correlate (Gunter and Wober, 1992). The same applies when comparing audience figures with perceived quality measures: viewers often report to watch programs they find of poor quality (Morrison, 1986; Wober, 1990.). Quality measures themselves differ from appreciation, usually resulting in a more severe evaluation (Ishikawa, 1991; Gunter and Wober, 1992; Leggatt, 1996; Weimann et al., 1992). This shows how the audiences use different parameters with respect to actual watching, appreciation and perceived quality. As a consequence, contrary to what happens in the media market, audience figures cannot be considered as an indicator of either appreciation or perceived quality.

In the early period of mass media diffusion, audience ratings and qualitative response to the offer were measured independently. However, after commercial television spread in Western countries, qualitative research on appreciation was mostly abandoned (with some exceptions, like the BBC in England and NHc in Japan). In fact, broadcasters and the public opinion mostly rely on audience ratings figures as an indication of success or failure of TV programs. If ratings are high, it means that people like that program and that they want more of that kind of contents. This implies a confusion between information for enhancing the quality of programs (especially for public televisions) and data to provide advertisers with insight on the audience market (Hagen, 1999).

A basic methodological problem in this field of research is the so called “social desirability bias”. Asking people directly whether they like or watch specific TV programs may lead to answers that are motivated by social desirability. As mentioned above, research indicates that people like to complain about TV programs, as it facilitates social bonding (Ang, 1985). In sum, we often do not know if people are sincere when they express low appreciation or perceived quality for programs that have high audience figures. This is an important point, as appreciation for niche and cultural contents is constantly higher than appreciation for entertainment and programs for mass targets (see, for example, Heuvelman et al., 2005, 333).

The main questions to be answered in this field of analysis therefore pertain to the nature of the contradiction between actual consumption and reported appreciation: is this contradiction only the result of social desirability biases or is there a real gap between preferences and consumption?

A telephone survey conducted in 2002 among Dutch television viewers by Heuvelman et al. (2005) finds that, quite paradoxically, people often criticise TV, but keep watching. The authors asked the respondents to indicate how and when they felt negative sensations watching TV, such as being irritated or shocked, or considered that what they were watching was intolerable. The results reveal that a large percentage of viewers claim to be sometimes irritated by TV programs (80,2%), a smaller percentage admit to be shocked (65%) and about 21% describe some programs as intolerable. Education levels only correlate significantly with sensations of “irritation” (higher educated viewers seem to be

more easily irritated than lower educated viewers,  $r=.12$ ,  $p<0.05$ ). It is particularly interesting to notice that a multivariate analysis does not show a significant relation between the time spent watching TV and the amount of negative feelings expressed by the subjects. This means that those reporting higher negative feelings do not watch TV significantly less than others. We don't know if these subjects change the channel they are watching when they experience negative feelings. Nevertheless, these results provide an indication of a discrepancy between media consumption and content appreciation and satisfaction.

In a qualitative research, Lundy et al. (2008) analyze the reality television viewing patterns of 34 college students and their perceptions of the situations portrayed in these programs. The results indicate that while participants clearly perceive a social stigma associated with watching reality television, they continue to watch because of the perceived escapism and social affiliation provided. The authors report that, in the first part of the focus groups, participants started with an initial underestimation of their reality TV consumption. However, over the course of the discussions, it was evident that participants watched (or were at least familiar with) more reality TV shows than first indicated.

Meijer (2007) describes what she calls a “double viewing paradox”. In a qualitative research on 450 young people in the Netherlands, she finds that there is no relationship between the significance attributed by young people to news and their actual behaviour as viewers. Subjects reveal that, although they are in favour of high journalistic standards in terms of reliability, independence, and in-depth analysis, in the end they find this kind of content “boring” and they choose something more entertaining. Therefore “their satisfaction about and even interest in “serious” news does not automatically cause them to watch it, while, vice versa, their contempt for light news programs (“stupid,” “junk”) does not prevent them from watching and enjoying them”.

Many media sociology handbooks report lists of so-called “criteria of newsworthiness”. Chibnall (1977), for example, describes the following criteria that explain the emergence of law and order news stories: immediacy (speed/the present), dramatization (drama and action), personalisation, (culture of personality/celebrity), simplification (elimination of shades of gray), conventionalism (hegemonic ideology), structured access (experts, power base, authority), novelty (new angle/speculation/twist), titillation (revealing the forbidden/voyeurism). Meyers (1997) shows how ‘novelty’ and ‘titillation’ are important factors to predict whether or not crimes are reported. It has been repeatedly demonstrated how commercial broadcasting televises an event if it is capable of attracting attention. This means that sensational and extraordinary events tend to be accorded a special rank (McQuail, 2002, p. 205). More recently, voyeurism has been found to be an important factor explaining the appeal of reality TV shows (Baruh, 2009)

In the last fifteen years, experimental psychology has complemented these findings from sociology and journalism studies with interesting physiological evidence. The methods used to measure attention vary from Eyes on Screen (EOS) when selectivity is concerned (see for example Miller, 2006, p. 512-513), to heart rate (Lacey and Lacey, 1974; Lang, 1990; Lang, 1994; Lang, Bolls, et al., 1999; Lang et al., 2003), “Secondary task reaction time” (Basil, 1994), and tracking of alpha frequency of the electroencephalogram (Simons et al., 2003). These studies find that certain characteristics of media content – that mostly

coincide with those traditionally identified in studies on newsworthiness – physiologically attract people’s attention. They are capable to win the competition for attention through physiological arousal, giving way to relative overconsumption when this arousal and consequent attention are not accompanied by a cognitive interest or are used without a quality background.

This also explains why there exists a systematic bias in commercial media representations. As McQuail (2005, 359) points out, media contents do not normally ‘reflect’ reality in any statistically representative way: drama, celebrity, novelty and conflict are by definition abnormal. It is well-known that specific situations are over-represented in TV contents. The characters lead exciting lives and are rich, young, fashionable and beautiful (Martel and McCall, 1964); affluence, conflict, violence and occupations like doctors, lawyers, police officers occur with much greater frequency than in the real world (Gerber et al. 1994; Lighter et al., 1994). The reason why these criteria are used systematically is that they provoke quasi-instinctive reactions in the audience’s attention. They are more powerful ‘attention attractors’ than other kinds of content.

It is interesting to notice that as the space of time in which the competition takes place gets shorter, following the introduction of the remote control, attention attraction is much more effective if it is based on emotional, instinctive stimuli rather than on cognitive ones. Marketing and economic studies have widely analyzed ‘buying impulses’ which are provoked by immediate and non-rational attracting stimuli (see Rook, 1987, O’Donoghue and Rabin, 2000). The competition among communication sources for conquering larger shares of the ‘public attention market’ (McManus, 1995) strengthens the general exploitation of attention seeking factors (Davenport and Beck, 2001). As a consequence, a vicious circle is created with over-representation of instinctual stimuli in comparison to cognitive ones and their progressive increase in the competition among the media.

In sum, while we cannot avoid to take social desirability biases into consideration, it seems that there is more at stake than simple insincerity. People show difficulties in choosing content they can be satisfied with. It appears that engaging in consumption of truly satisfactory content is laborious and/or tiring. Therefore, when facing multiple and easily selectable stimuli, as it happens with a remote control, people tend to opt for immediate gratifications.

#### **4. Television and well-being**

Given the prominent role played by television in people’s life, inconsistencies in its consumption can be studied effectively also by looking at its influence on overall well-being. Traditional research on media effects focuses on the effects of television on the social and psychological dimensions: the impact of television content on social perceptions, attitudes and beliefs, or the effects of television viewing on individuals’ mental processes and health outcomes. Economists have studied the impact of television advertising on consumer choices, but they have largely ignored the broader effects of television viewing on economic behavior and outcomes.<sup>1</sup> Quite surprisingly, until recently, the literature on the

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<sup>1</sup>For an exception, Corneo (2005) focuses on the relationship between television viewing and working time, developing a simple theoretical model based on the notion of aggregate strategic complementarities in

relationship between TV viewing and individual well-being attracted relatively little attention.

In this section we review the evidence on the relationship between television viewing and individual well-being, as proxied by survey data on happiness or life satisfaction. We start by considering the relationship between the quantity of television viewing and well-being, focusing on the evidence on a number of specific mechanisms through which television consumption may affect happiness. We then examine the evidence on the relationship between the quality of television viewing and well-being.

#### 4.1 Quantity of television viewing and well-being

A number of early studies in the social sciences have investigated the relationship between TV consumption and self-reported well-being. These studies have generally found a negative relationship between the overall quantity of television exposure and life satisfaction (Tankard and Harris, 1980; Morgan, 1984; Espe and Seiwert, 1987). However, even if the results are obtained while controlling for several socio-demographic variables, their interpretation has to take into account the possibility of reverse causality: does TV viewing cause unhappiness, or do unhappy people watch more TV than those who are happier?

Recently, the relationship between TV consumption and self-reported well-being has come back in the research agenda, with more comprehensive investigations and a more accurate analysis of the problem of reverse causality. The study by Frey et al. (2007) provides one of the most comprehensive investigations of the effects of the quantity of television viewing on well-being. In particular, this study examines the hypothesis that, as individuals are subject to a self-control problem rather than a taste for TV, heavy TV consumption results in lower well-being. The analysis is based on the first wave of the 2002-2003 European Social Survey, providing data for 22 countries for a total of about 42,000 observations. Life satisfaction, used as a proxy for utility, is regressed against television viewing time, while controlling for a number of socio-demographic factors, such as household income, gender, age, marital status, employment status, education, working time, nationality and type of location. The relationship is estimated by ordinary least squares and by ordered probit, to take into account the categorical nature of the dependent variable. The results indicate that high levels of television consumption are negatively related to individual life satisfaction: people who watch less than half an hour of TV per day, used as the reference group, report significantly higher life satisfaction, *ceteris paribus*, than people who choose any other level of TV consumption. The estimated negative effect is particularly strong for people watching for more than 2.5 hours a day.

In order to tackle the issue of reverse causality, the study relies on two counterfactual hypotheses. First, if it is TV viewing that lowers well-being, then it must also be true that television viewing should more strongly affect the life satisfaction of individuals with high opportunity costs of time. On the contrary, it should have a smaller impact on individuals whose time is less valuable. Second, higher levels of television consumption should lead to

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social leisure, to explain the empirical finding that television viewing is positively correlated with work hours across countries.

higher material aspirations and, as a consequence, lower financial satisfaction for a given level of income. The empirical results are consistent with both these hypotheses.

A closely related study by Benesch et al. (2006) focuses on the tendency for overconsumption by considering the issue of growing numbers of channels. In particular, the authors study whether having a larger choice set raises people's subjective well-being, as expected according to standard economic theory. The results of the empirical analysis indicate that, when exposed to more TV channels, heavy TV viewers do not obtain net benefits, but instead report lower life satisfaction. The positive effect from a potentially better match between TV programs and individual preferences is more than offset by the loss of well-being resulting from over-consumption.

Overall, the studies of the relationship between the quantity of television viewing and well-being are generally based on purely cross-sectional data sets, so that it remains difficult to interpret the findings as a causal effect from television viewing to well-being, as reverse causality cannot be ruled out. More generally, it is also not possible to rule out that unobserved factors determine both the quantity of TV viewing and well-being. A possible solution relies on focusing on specific aspects of the mechanism that explains the effect of television viewing on individual well-being. In the following, we will consider the recent literature that follows this approach.

A first channel through which the quantity of TV viewing may affect well-being is the impact on interpersonal relationships. Television viewing may have a negative impact on life satisfaction by harming, and to some extent replacing, relationships with other people. The literature has analyzed this from two complementary perspectives. On the one hand, the time spent watching television can be subtracted from communicating with family and friends, participating to community-life, or interacting socially. That is, relational activities that significantly contribute to our life satisfaction. On the other hand, television can play a significant role in raising people's materialism and material aspirations, thus leading individuals to underestimate the relative importance of interpersonal relations for their life satisfaction and, as a consequence, to over-invest in income-producing activities and under-invest in relational activities.

At the aggregate level, Putnam (1995, 2005) has pointed out the negative relationship between TV consumption and other more social forms of entertainment. At the individual level, there is extensive evidence that television viewing has a profound impact on relationships within the family (see e.g. Kubey and Csikszentmihalyi, 1990), leading in particular to less communication and interaction.<sup>2</sup> Television viewing has also been shown to decrease the amount of time spent with friends (e.g. Robinson, 1977).<sup>3</sup>

In a recent study, Bruni and Stanca (2008) investigate the effect of television viewing on

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<sup>2</sup> "Television seems to have changed the ways in which family interaction occurs. When the set is on, there is less conversation and less interaction. [...] There is more privatization of experience; the family may gather around the set, but they remain isolated in their attention to it". [...] "When the TV set is on, it freezes everybody. Everything that used to go on between people – the games, the arguments, the emotional scenes, out of which personality and ability develop – is stopped." (Kubey and Csikszentmihalyi, 1990, p. 108).

<sup>3</sup> "People no longer sit around and visit. Everywhere you go you have to outtalk TV. TV people have entered your home and life more than people who should be friends and companions" (Steiner, 1983, in Kubey and Csikszentmihalyi, 1990, p. 108).

individual happiness through its impact on interpersonal relationships. The authors formulate and investigate empirically two main propositions. First, relational goods have an important independent effect on life satisfaction, controlling for individual demographic and socio-economic factors, personality characteristics and contextual differences. Second, television has a significant crowding-out effect on relational activities, thus playing a key role in explaining why individuals under-invest in relationality. Both relationships are strongly significant and robust to the use of alternative indicators of relational goods. The results are also robust to estimation by instrumental variables to deal with possible simultaneity. These findings are interpreted as an indication that the pervasive and increasing role of television viewing in contemporary society, through its crowding out effect on relational activities, contributes to the explanation of the income-happiness paradox.

A second mechanism through which television viewing, irrespective of its contents, can affect well-being is its behavioral impact. A recent study by Moskaleiko et al. (2003) investigates experimentally the role of television viewing in eliciting subjective self-awareness and positive self-feelings. The findings indicate that television provides an “effective stimulus to direct the focus away from oneself and to render people less aware of how they are falling short of their standards”. Williams (1986), relying on a natural experiment, finds that the introduction of television had a negative causal effect on children’s reading abilities and creative thinking. Television viewing can also have a direct effect on well-being through its impact on physical and mental health. A large number of studies have investigated, in particular, the relationship between television viewing and obesity.<sup>4</sup>

## 4.2 Quality of television content and well-being

We will now examine the literature on the effects of the contents of television viewing on well-being, as opposed to its quantity. We thus focus on the studies that have analyzed if the situations, characters, ideas and images depicted in TV programs have a significant impact on viewers’ well-being.

A traditional framework in media studies that analyzes the long-run effects of television contents is “cultivation theory” (Gerbner et al., 1977, 2002). Within this framework, television has a significant impact on both societal perceptions and personal values, as over time dominant program content is assimilated into personal value structures.

Given that, as discussed above, the world represented by television differs significantly and systematically from reality (e.g. greater affluence, higher crime rates, etc.), this distortion influences the beliefs of viewers. The cultivation hypothesis suggests that heavy TV viewers may develop unrealistic beliefs about other people and the society they live in. However, cultivation theory did not explicitly link cultivation effects to well-being. We believe that it is useful to understand in what way the impact of television viewing on perceptions about

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<sup>4</sup> Cutler et al. (2003), for instance, calculate that a 40 minute change from light household activity to a sedentary activity such as television viewing would lead to a four-pound increase in steady-state weight for the average male.

society, may in turn have an adverse effect on well-being.

A large body of evidence in the literature on the determinants of happiness has shown that, in order to understand the relationship between material conditions and happiness, it is necessary to take into account that subjective evaluations of objective conditions depend crucially on the relevant terms of reference (e.g. Michalos, 1985). In particular, the effect of income on well-being depends on how actual income compares to that of the reference group, to aspired income, and to past income (e.g. Frank, 1999, Easterlin, 2001, Stutzer, 2004).

Television is widely recognised as one of the most powerful agents of socialization in contemporary society. In particular, television is the main source through which people acquire social information and are driven to make social comparisons. In addition, television plays a key role in consumer socialization, by providing consumers with information used in constructing their mental representation of reality.<sup>5</sup> Overall, television viewing may have an indirect effect on our well-being, as it contributes to define what our reference group and our goals are, or should be.

Several studies provide evidence indicating that television plays a major role in affecting social comparison. Consumers often use information from television to construct perceptions of social reality, including the prevalence of affluence. The general argument is that television viewing leads individuals to overestimate other people's affluence, and such a perceived discrepancy results in lower life satisfaction. When watching TV, people are overwhelmed by images of people who are wealthier than they are (e.g. Lichter, 1994, McQuail, 2005, 359). This contributes to shifting up the benchmark for people's positional concerns: people compare their income and consumption levels not only to those of their actual social reference group, but also to those of their virtual reference group, defined and constructed by television programs.<sup>6</sup> In this perspective, TV can be seen as a powerful factor in speeding up the so-called *positional treadmill*, through comparison with higher benchmark groups.

O'Guinn and Shrum, (1997) find the amount of viewing to be positively related to perceptions of the prevalence of high-status products and services. They report the results of two studies investigating the construction of consumer social reality via exposure to TV. The findings support the hypothesis that TV is a significant source of consumer-related social perceptions and, in particular, that those who watch more TV perceive a reality in which more people enjoy affluence. Using a stratified random sample of 2,929 individuals, the first study asks respondents to provide percentage estimates of the prevalence of U.S.

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<sup>5</sup>"Television has a number of features that contribute to its impact as an agent of consumer socialization. First, it is ubiquitous: the average American family watches more than seven hours of television per day, the average individual more than four hours per day. Second, the effects of television are often invisible. Watching television is so common that its effects can be obscured. Third, television supplies its viewers with images, accounts and stories of life that often far removed from the viewer's daily experience and social milieu. Fourth, television's message is homogeneous. Fifth, television's representations of social reality are often discrepant from objective reality." (O'Guinn and Shrum, 1997, p. 278)

<sup>6</sup>As observed by Layard (2003, p. 16): "The most obvious transformation of our life was the arrival of television, which shows us with total intimacy how other people live. Where people once compared themselves with the people round the corner, they can now compare themselves with anyone they like, up to J.R. in Dallas. It would be astonishing if such comparisons were not unsettling."

households owning specific products, finding a positive relationship between the total amount of TV watched and the estimates. The second study examines the contents of the shows watched by 51 students at the University of Illinois, classified as either light or heavy soap opera viewers. Heavy viewers are found to be characterized by higher affluence estimates than light viewers. Overall, the results indicate that heavy viewing cultivates perceptions of an affluent society.

Shrum et al. (1998) provide additional evidence on this phenomenon. They investigate the extent to which heavy television viewing affects consumers' perceptions of social reality in samples with and without priming stimuli (estimating their viewing preferences before the questionnaire or being provided with alerts about possible biases in the estimates using information coming from television). The results show that under no-priming conditions the estimates of crime and particular occupations (doctors, scientist, lawyers) increased with TV viewing, while under priming conditions there was no correlation. The use of this priming methodology provides support for the notion that television is a causal factor in the formation of these beliefs and not a simple correlate.

Layard (2005) also touches upon closely related issues, focusing on the effects of television viewing on perceived relative income. In a sample of about 22,000 individuals from the US General Social Survey, television viewing is found to be negatively related to both perceived relative income and happiness.

Other forms of distortions on social comparison have been documented in the literature. A number of studies have investigated the adverse effect of the exposure to images of attractive females on women's body image and mood (e.g. Lin and Kulik, 2002, Wedell et al., 2005). Yuko (2007) focuses instead on the effect of exposure to attractive female images on men. The experimental results reported in this study indicate that the males who were exposed to the attractive female images evaluated average females less physically attractive than those exposed to a control condition.

Several studies provide evidence indicating that television, through advertising and program contents, plays a major role in shaping people's preferences and, in particular, their degree of materialism. This brings people to overestimate the importance of material possessions, and underestimate the importance of relational and non-economic factors. In addition, while television viewing cultivates materialism among viewers, a higher degree of materialism is associated to a lower individual life satisfaction. Several studies have examined the relationship between materialism and happiness or life satisfaction, finding a significant negative relation (see e.g. Wright and Larsen, 1993, and Fournier and Richins, 1991, for reviews).

Sirgy et al. (1998) investigate empirically the effect of television viewing on materialism, satisfaction with standard of living and, as a consequence, satisfaction with life. The analysis considers survey data from the US, Canada, Australia, Turkey, and China, in order to examine a variety of cultural and media environments. Due to the portrait of material consumption and possessions by television programming and advertisements, viewers develop higher materialism and, as a consequence, are less satisfied with their lives. Burroughs et al. (2002) examine the role of materialism in explaining the relationship between television viewing and life satisfaction, finding that once materialism is removed,



such a relationship no longer exists. Shrum et al. (2005) extend their previous research on the construction of societal perceptions by examining the way in which television viewing cultivates consumer values such as materialism. The results from both a survey and an experiment suggest that television cultivates materialism through a process in which television's influence is enhanced by the level of attention paid during viewing.

Bruni and Stanca (2006) examine the effects of television on income aspirations and, as a result, on the relationship between income and individual happiness. They argue that television viewing reduces the effect of income on life satisfaction by producing higher material aspirations, enhancing both adaptation and positional effects. More specifically, they test the hypothesis that heavy TV users derive less satisfaction from a given level of income, relative to occasional TV users, since television viewing has a significant positive impact on their material aspirations by speeding up both the satisfaction and positional treadmills. The results, based on individual data from the World Values Survey, indicate that the effect of income on subjective well-being is significantly lower for heavy-TV viewers. The effect of income on both life and financial satisfaction is found to be significantly smaller for heavy television viewers, relative to occasional TV viewers. This finding is robust to a number of specification checks, while different alternative interpretations are examined and rejected. Overall, the results can be interpreted as an indication that the role of TV in raising aspirations provides an additional explanation for the income-happiness paradox: the pervasive and increasing role of television viewing in people's life contributes significantly to raising individual material aspirations, thus lowering the effect of higher income on happiness.

Yang et al. (2008), using survey data for South Korea and India, explore how the values and images embedded in exported U.S. media may function as a catalyst that deteriorates individuals' subjective well-being in developing countries. The Korean sample indicates that television viewing is positively associated with perceptions of U.S. people's affluence, which in turn are negatively related to satisfaction with Korean society. The Indian sample indicates that television viewing is positively associated with materialism, though only among people who have no or few friends and relatives in the U.S., and that materialism is negatively related to satisfaction with Indian society.

A number of studies have focused on the relationship between exposure to television advertising and life satisfaction. Richins (1987) reports that exposure to television advertising triggers dissatisfaction with standards of living and lowers overall life satisfaction, particularly for those who believe the portrayals of affluence on television commercials are realistic. Buijzen and Valkenburg (2003) use a survey on 360 parent-child dyads to investigate the relationship between television advertising and children's purchase requests, materialism and life dissatisfaction. The results indicate that advertising is positively and directly related to children's purchase requests and materialism, while also being indirectly negatively related to life satisfaction. The relationship between television advertising exposure and life satisfaction appears to be consistently negative across studies.

Although materialism has been identified as a key factor for understanding the negative relationship between television viewing and life satisfaction, alternative mechanisms may also play an important role. Research has suggested that people watching more television tend to overestimate crime and personal vulnerability. Heavy television viewing has been

linked to greater perceptions of the prevalence of violence (Gerbner et al. 1980; Shrum 1996; Shrum and O'Guinn 1993), greater perceived danger (Gerbner et al. 1980; Shrum 1996), and higher expectations of being crime victims (Signorielli et al., 1995). Several studies found in particular that children's television use is associated with higher perceptions of personal vulnerability to threats such as crime, terrorism, and earthquakes (e.g. Comer et al., 2008).

Television coverage has also been found to lead viewers to overestimate the incidence and prevalence of associated health risks, and to influence viewers' beliefs about self-control over health. Ye (2007) provides a review of media representation of health risks and its effects on individuals' perceived health risks and perceived self-efficacy in maintaining personal health. Several recent studies have investigated the cultivation of beliefs about romantic relationships, finding a significant relationship between romance-oriented media and people's beliefs about relationships (e.g. Holmes, 2007).

Finally, a number of recent studies examine the effects of television viewing, and of role models portrayed in TV programs, on individual behaviour. Chong et al. (2008) focus on the effect of increases in viewing of soap operas on fertility choices. Using Census data for the period 1970-1991 in Brazil, they find that women living in areas covered by the signal of networks that broadcast soap operas have significantly lower fertility. The effect is found to be stronger for women of lower socio-economic status and for women in the central and late phases of their fertility cycle. Interestingly, the study provides evidence that novelas, and not just television, affects individual choices: the entry of a network that relied on imported shows did not have a significant impact on fertility. In a closely related paper, Chong and La Ferrara (2009) study empirically the link between television and divorce in Brazil. The paper finds that the share of women who are separated or divorced has increased significantly after the signal of networks that produce soap operas has become available.

## **5. Conclusions**

This paper reviewed the empirical evidence on contradictions between television consumption choices and both satisfaction and well-being. We proposed a framework to distinguish among specific dimensions within this unique phenomenon. By interacting two dichotomous dimensions (quantity vs. content, consumption satisfaction vs. life satisfaction) our proposed taxonomy identifies four areas: time choice, content choice, lifestyle and cultivation effects. For each of these areas we reviewed the relevant multidisciplinary literature, in particular from sociology, economics and psychology. The results converge in drawing a picture of TV viewing as a major example of overconsumption: television consumption is often characterized by an inconsistency between choices of actual viewing and both consumption satisfaction and well-being.

TV viewers are particularly attracted by TV, but tend to miscalculate their costs to the point that they regret the amount of watching afterwards. Especially when consumption is not explicitly voluntary, immediate gratifications can coexist with successive dissatisfaction. Individuals display difficulties in choosing a satisfactory content. It appears that engaging in consumption of truly satisfactory content is laborious and demanding. Therefore, when facing multiple and easily selectable stimuli, as it happens with a remote control, people

tend to opt for immediate gratifications.

What stands out in particular is that, as stimuli rise, the ability to maximize our own utility decreases, since we are more frequently “tempted” by those contents which do not reflect our true preferences. When individuals choose how much TV and what programs they want to watch, they appear to overestimate the short-term benefits and underestimate the long-term costs of their choice. As a consequence, with respect to individual well-being, people consume more television than they should and they watch the wrong type of programs. “Many of the costs resulting from such consumption behaviour are not experienced immediately, or not predicted at all. The negative effects of not enough sleep, for example, only arise the next day, and the consequences of underinvestment in social contacts, education or career take much longer to appear. An increase in one’s material aspirations might not be foreseen at all.” (Frey et al., 2007, 2). Television viewing also plays a key role in producing the belief that happiness depends on material consumption and, as a consequence, in raising our material aspirations. In addition, television viewing leads individuals to underestimate the relative importance of relational goods for their life satisfaction and, as a consequence, to over-invest in income-producing activities and under-invest in relational activities.

We argue that the evidence reported for each of the four areas provides an overall picture: television viewing as a major example of overconsumption. Inconsistencies between choices and satisfaction represent a wider phenomenon which can indeed be detected in many areas of consumption. However, TV consumption is probably one of the fields of consumption where this phenomenon is more evident. This is due to a number of specific reasons.

First, in commercial TV viewing the product is virtually free, as it is paid by advertising. Even in cable TV or satellite TV the costs of the single exposure are marginal. This makes TV consumption a low cost activity in which impulse choices are much more frequent than previously determined choices.<sup>7</sup> Second, TV viewing represents a leisure activity with the goal of producing immediate relaxation with low involvement. This brings the users to keep activation costs at their lowest level. As a result, inconsistent choices are much more probable. Third, television tends to produce a viewing habit and, in many cases, can become highly addictive (see e.g. Winn, 1977).

In a methodological perspective, we outlined two major problems of this field of study. With respect to consumption satisfaction, “social desirability” constitutes a relevant obstacle for data collection. With respect to life satisfaction, the main problem is the causal interpretation of estimated relationships.. We presented research that tries to overcome both problems, concluding that, although social desirability biases and reverse causality constitute serious methodological challenges for research on TV viewing and satisfaction, they can only partially explain the large body of evidence available.. We also outlined how social and contextual variables can influence the size of these effects. For example, the use of audience ratings as an absolute measurement of TV programme performance brings authors and editors to maximize the quantitative audience outcome irrespective of quality and satisfaction measures.

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<sup>7</sup> As pointed out by Frey et al. (2007) “TV viewing is characterized by immediate benefits and negligible immediate marginal costs [...]”

We conclude by pointing out that contradictions in consumption choices are probably even more relevant in the case of consumption of new media. The use of new media is spreading in our daily lives and emphasizes the social relevance of perpetual connectivity. This produces possibilities of immediate selection of any kind of contents in every moment of the day. The implications of such new opportunities for consumers' satisfaction and well-being represent an important topic for further research.

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