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Adoption of new forms of television and emotion in five European countries

Introduction

Digitalization of broadcasting techniques is transforming the landscape of television across the world. In Europe, the regulation and adoption of terrestrial television broadcasting especially have received a lot of public attention within the last few years. Along with terrestrial television, Internet Protocol TV (IPTV) is considered to have remarkable market potential as broadband connections have become faster and easier to access (Thompson, 2007; Simpson & Greenfield, 2007). Despite the emerging forms of TV, a remarkable number of Europeans are still watching analogue terrestrial television or making use of cable and satellite technologies based on analogue or digital solutions.

It is our intention to look at the extent to which the populations of the five most inhabited and affluent European countries – Italy, France, Germany, the United Kingdom and Spain – have adopted these new forms of television. The first aim of the study is to explore how the television audience has split into several different audiences according to the various platforms now available and identify the socio-demographic structures of these different TV audiences. Therefore, although the history of television studies has developed largely around the question of the medium's influence (Silverstone, 1994, p. 132), in this paper we want to focus on viewers' identity by drawing portraits of the audiences of the new forms of television. Our first hypothesis is that the oft-discussed fragmentation and individualization of the paths of media consumption (see for example Bjur, 2009) does not impede the formation of different audiences that are shaped by certain shared characteristics. The second aim of this study is to focus on the broad field of the practices of use of television in terms of a particular aspect: the emotional fabric that people attach to television and its new forms. According to Lull (1980), social use of television in the home is of two primary types: structural (environmental and regulative) and relational (communication facilitation, affiliation/avoidance, social learning and competence/dominance). The emotional fabric crosses both types of social use in the sense that, for example, companionship and fun are related to environmental dimensions. Investigating it is particularly important since emotions coincide to structure reality, to outline a predictable social reality, and to provide models of elaboration of expectations (Flam, 1990). Our second hypothesis is that the pluralisation of television forms has brought a restructuring of the emotional response that the TV audience has traditionally made to analogue television. Investigating emotion is important since it is an important part of social action, constitutes one of the three dimensions of the

model of social action (which consists of norms, emotions and reason; Flam, 1990; Turnaturi, 1995; Fortunati, 2009), and in our specific case is a good way to capture indirectly the reaction to and reception of the different forms of television. Interrogating audiences would not be the best strategy at the moment as we share Derrida and Stiegler's concern that TV viewers are all in a state of illiteracy in respect of the image (Derrida & Stiegler, 1996/1997, p. 64).

To tackle these questions we will analyse survey data collected from Italy, France, the UK, Germany and Spain (N=7255) in 2009. The survey, funded by Telecom Italia, partially replicates research carried out in 1996 on the same countries (N=6609) (Fortunati, 1998). With the help of these data we will not only be able to break down the profile of television viewers of the different forms of TV, but also to present multivariate models to predict the ownership of these new forms of television. We are primarily interested in studying the new, emerging, forms of television, but of course we will take the analogue terrestrial television as a comparison term. Second, we are interested in investigating the emotional fabric that characterizes people's relationship with the television and its different forms.

This chapter begins with an overview of previous literature on the role of television, and particularly on how TV viewing is connected to the emotional fabric of audiences, as well as to the debate on technological convergence/divergence. We will then address the issue of the new forms of television, considering how the spatial-temporal categories of television use are restructuring as a consequence of their adoption. The question of whether the new forms of television are changing the emotional dimension of TV viewing will be discussed in particular. After the review of previous literature, we will turn to our data and measures for illustrating them. Of the many possible ways of conceptualizing and defining emotion, we have decided to operationalize them by applying James A. Russell's (1980) circumplex model of affect as it has been tested over the last three decades and it has proved to be appropriate for measuring emotions in various research settings (Martin et al., 2008, pp.225-227). After presenting and discussing our analyses and results regarding the profiles of the audiences of the new forms of television and the emotional fabric applied, we will draw some final conclusions.

The new forms of TV: a divergent process

Since its domestication television has had a pivotal role in structuring the use of time in the economy and ecology of everyday life of family members. Programmes such as daily news, soap operas or series and major sporting events set routines, rituals and rhythms for everyday life (Yoshimi, 2010, p. 552; Kortti, 2010, p. 9). The scheduling and execution of other chores, if they are not absolute necessities, have been subordinated to them (Gauntlett & Hill, 1999, p. 35) or have been carried out in juxtaposition, as previous research carried out in 1996 showed (Fortunati & Manganelli, 1998). Besides the importance of

television in the spatial and temporal organization of family life, TV use also plays a strong role, as James Lull observes (1980, p. 197), in setting conversational agendas, developing socialization and interpersonal interaction patterns within families, influencing the use of languages, patterns of speech and thought. Here, however, we are specifically concerned with investigating how television conveys a wide spectrum of emotions which according to some studies are discussed and shared by viewers along with ideas, information and symbols (e.g. Huston et al., 1995; Harper, Regan & Rouncefield, 2006). Silverstone, for example, argues that TV may provide food for sustaining and managing conversations as well as feelings of dependence, security and attachment (Silverstone, 1994, p. 11, 40). On top of this, television has the capacity to create, strengthen and release the emotional tensions that can develop within families (Kortti, 2010, p.5).

The new forms of TV talk against the heated debate about the convergence process where various technologies are seen merging together in contemporary societies (Jenkins, 2006). Fortunati (2008) has discussed this elsewhere and argued that divergence (the opposite process) is an equally important issue. Our object of investigation – the new forms of television – is proof of the relevance of the divergence process. This process of technological divergence, clearly embraced by users, has in its turn also had consequences for consumption behaviours and lifestyles, which have become more personalized and individualized. In fact, it is a common trait of all new forms of TV that they are able to provide viewers with a higher level of personification with regard to space, time and content of TV viewing (e.g. Moran, 2010, p. 293). Earlier studies report, for instance, that the users of mobile television and IPTV appreciate most watching programmes from archives whenever it fits into their own schedules (Södergård, 2003). The temporal personification of TV-watching means that people have the opportunity to break away from those collective rhythms of daily life which were built from shared TV-watching at home with other family members, and from those constraints deriving from the different time schedules, tastes and desires of family members.

The Internet has made it possible to watch television programmes online when it fits with one's own schedule, to become a 'devoted' fan, to orient and influence broadcasting in so many ways and to share these experiences with others in online communities (Kortti, 2010, p. 13; Wohn & Na, 2011). This is to say that a higher degree of individuality in TV-viewing behaviour does not automatically signal people's 'alienation' because new forms of television can also be shared with others and be co-consumed (e.g. Harper, Regan & Rouncefield, 2006). These studies actually indicate that the technological divergence of media may actually increase the communality of television.

At the same time, this divergent process has involved the emotional response experienced by different TV audiences to the new forms of TV. Many authors have recently investigated the emotion of TV audiences in order to understand how people orient themselves in front of new types of programme, especially reality shows that aim at the intimate engagement of the audience and the

unleashing of their emotions (e.g. Aslama & Pantti, 2006; Gorton, 2009; Kavka, 2008; Ellis, 2009). The cross-cultural study that we propose here, however, is not so common in audience studies.

In our study the divergent process is explored in the context of five EU member states: Italy, France, Germany, the United Kingdom and Spain. After the phase of 'classical television', roughly from the 1960s to the 1980s, characterized by national analogue broadcasting companies and a small number of channels (Gripsrud, 2010, pp. 77-78), satellite and cable television were introduced in all these countries (Van der Broeck & Pierson, 2008). Gripsrud (2010, p. 80) writes that these two technologies were adopted very rapidly and that they were well received by consistent groups of audiences in western Europe. He adds that the launch of cable and satellite technology took place in chorus with the success of neo-liberal deregulation media policy, and the success of these technologies was guaranteed by a demand for different sorts of channels. The diffusion of satellite and cable TV is far from being homogeneous in the countries considered in this study, however. For example, cable TV in Italy never really developed because it has always been opposed by the public RAI-TV service and by the government. There have been many attempts to implement this form of television, such as Stream (by Telecom Italia) and TV by Fastweb, but they have not succeeded. Satellite TV was embraced more enthusiastically in Germany and the UK than in the other three countries.

The newest technology studied in our article is IPTV, which is still in its infancy in all of the explored countries. According to Thompson's (2007) report, France had the largest number of IPTV subscribers in 2006, a trend confirmed also in successive years, according to the report 'A Sampler of International Media and Communication Statistics 2010' (Leckner & Facht, 2010). Furthermore, Thompson's report also confirms that France, UK and Spain were amongst the most advanced countries in Europe in terms of the switchover from analogue to digital terrestrial broadcasting. The EU member states have committed to switch off analogue terrestrial TV by the end of 2012 and it seems that this goal will be met by almost every country.

Data and methods

The paper is based on a broad survey that was carried out in Italy, France, the UK, Germany and Spain in 2009 (N=7255). The sample is representative of the populations of these countries and is structured as follows: Italy (N=1398), France (N=1424), Germany (N=1919), the United Kingdom (N=1411) and Spain (N=1103). The data were collected by means of a fixed telephone survey. In this study we used weighted data in order to correct distortions (related to age, education, ownership of a computer and access to the Internet) which affected the correct representation of the various quotas of the sample. This survey was an adjusted replication of the first survey carried out in 1996 in the same European countries and with representative samples of the related

populations, and, when appropriate, we use those data for comparison with the new data collected.

The socio-demographic variables included in the analyses of the present article were gender, age, education, family typology, the size of the city residence, and country. Among the respondents, 3,551 were males (48.9%) and 3,704 were females (51.1%). The age of respondents was measured by years and afterwards categorized into five groups (14-17, 18-24, 25-44, 45-64 and 65 years and over). The typology of families was divided into singles, couples without children, and couples with children, single-parent families and mixed families (all the other types of families). Respondents' main activity was broke down into five categories: employees, house persons, unemployed, retired, and students. Education level was divided into the following categories: low (primary and secondary school diploma), middle (high school diploma) and high (college/university degree or higher). Finally, seven categories were distinguished with respect to city size (cities with fewer than 5,000 inhabitants; 5,000-10,000; 10,000-30,000; 30,000-100,000; 100,000-250,000; 250,000-500,000; 500,000 or more). Other socio-demographic background variables such as macro-region, income and professional status (even if investigated in this study) were excluded after careful analysis.

As regards the method, the article deploys bivariate statistics with a set of related tools, such as chi-square tests and standardized residuals,[1] and a multivariate method called logistic regression analysis (LRA). The logistic regression analyses with an entered method were executed to tackle the first question, whereas bivariate methods were used to study both the first and the second research questions. With regard to LRA, the Hosmer and Lemeshow test was used to indicate goodness-of-fit. To find out the overall proportion of the variance explained by our LRA models, we referred to Nagelkerke statistics (Tabachnick & Fidell, 2007, pp. 459-461). A dichotomous question about the possession of each of the various forms of TV was used as a dependent variable in the regression analysis, and a set of nominal, ordinal and dichotomous variables measuring demographic and spatial factors (Tabachnick & Fidell, 2007, p. 437) were entered as independent variables. Additionally, the potentially harmful impacts of outliers were ruled out.

Measures

Television. To study the new forms of television we used the question: 'Does your household subscribe to any pay-TV channels?'. Analogue television users

[1] The analysis of standardized residuals is based on the identification of the cells of a contingency table which are responsible for a significant overall chi-square. Values outside +/- 1.96 are interpreted as statistically significant (e.g., Everett, 1992, pp. 46-48; Field, 2009, pp. 698-700). To simplify the analysis, however, we read only the positive residuals.

were operationalized by excluding the pay-TV channel subscribers from those respondents who possessed a television. Respondents were asked to choose between multiple choices which were Satellite TV, Digital Terrestrial TV, IPTV (receiving TV via internet), and Cable TV. Additionally, respondents were given a chance to answer 'No' or 'Don't know/Can't remember'. The question did not distinguish between analogue and digital technology with respect to Satellite and Cable TV.

Emotions. To find out the feelings people associate with television we used the same battery of emotions that was in the 1996[2] survey. Then we applied Russell's circumplex model to reduce the emotion scale. The model sees emotion as organized according to a circular structure ('circumplex'), which is a two-dimensional space consisting of pleasure-displeasure and arousal-sleepiness (or high-low arousal) axes (e.g. Russell, 1980; Russell, Lewicka & Niit, 1989). The final emotion measure is made up of four emotional categories: excitement (pleasure/arousal), distress (arousal, unpleasant), depression (unpleasant/sleepiness) and contentment (sleepiness/pleasure). Each emotional category represents one quadrant of the circumplex model of affect.

Results

Portraits of the audiences of the various types of television

In this chapter we begin by depicting the portraits of the audiences of the various forms of television. As a first step we present bivariate relationships between various types of television and structural variables in Table 1. The data reveal that women more typically use analogue terrestrial television than men, although analogue television is still the most common form of television among both genders. Conversely, men own and use cable and satellite television more widely than women. Regarding the age of respondents, our analysis unsurprisingly shows that analogue terrestrial television is most widely used among the oldest users (65+), whereas the youngest respondents (14-24-year-olds) show the highest proportions when satellite TV or IPTV is considered. Respondents aged from 35 to 44 present the highest proportion of digital

[2] In the 1996 survey a pretest consisting of an open question was applied. Respondents were asked to answer spontaneously the question 'What emotions or feelings do you have about each of the following means of communication? Please just give one word off the top of your head for each one'. Answers were classified by the researchers, who closed down the question in the questionnaire into 20 predetermined categories: interest, enthusiasm, curiosity, anxiety, irritation/annoyance, joy/pleasure, satisfaction, frustration, anger, embarrassment, surprise, relaxation, companionship, fun/happiness, indifference, boredom, others, nothing in particular, don't know, no response.

terrestrial television. Regarding cable television, our data show no major age-based differences.

In addition, the data show that level of education is strongly associated with the access to or possession of IPTV and satellite television. Highly educated respondents are more likely to possess these types of television than respondents with a medium and, especially, a low level of education. Almost 60% of respondents with a low education level are still users of analogue television in the countries studied. When looking at respondents' main activities, we can see that students stand out from other groups, being more typically users of satellite and Internet television. Respondents in employee positions are forerunners in possessing digital television, and retired people report higher levels of analogue television possession than other groups.

Family composition reflects differences in the possession of various types of television as well. Single respondents are less likely to have satellite and digital terrestrial television than respondents living in other types of families. Couples with children, on the other hand, most typically have the latest television technology in their homes. In terms of satellite, digital television and IPTV possession, they are slightly ahead of other family types.

Lastly, we also explored how two spatial factors, the size of the city of residence and country, are related to various forms of television. First, as one may expect, the newest forms of television, such as digital terrestrial television and IPTV, but also satellite TV, are typical especially for those respondents who reside in large cities of 500,000 or more inhabitants. Correspondingly, these respondents are less likely to have analogue television than other groups. Compared with smaller towns, IPTV and satellite television are also very common in the cities with 250,000 to 500,000 inhabitants. In addition, it is interesting to note that satellite television is rather common in the smallest villages (fewer than 5,000 inhabitants) and small towns (10,000 to 30,000 inhabitants). This is partially explained by the poor availability of wired service, such as the cable and broadband needed for IPTV, in the smallest villages. Second, the countries studied are very different from one another in terms of the kind of television services they provide to their citizens. In Italy, cable television service is basically non-existent, but satellite television is more common than in other countries. Additionally, Italy still has a rather high proportion of analogue terrestrial television users. Digital terrestrial television is used more widely in France (15.5%) than in other countries. France is also the country with the highest, albeit still very low, number of IPTV users (3.0%). More than one-third of German respondents have subscribed to cable television, but in Germany the proportion of digital television users is still rather low. The UK sample shows a relatively high proportion of digital terrestrial TV users. The UK also has the second highest proportion of IPTV users in our data set. Spanish respondents, however, registered the biggest presence of analogue terrestrial television, and the lowest figure for satellite television.

	Satellite TV	Digital Terrestrial TV	IPTV	Cable TV	Analogue Terrestrial TV	Total	N	Chi-squares, sig
Gender								
- Male	17.1*	12.3	1.5	19.3*	49.7*	100.0	3423	51.866***
- Female	13.8*	10.7	1.4	16.0*	58.2*	100.0	3614	
Age								
- 14-24	18.5*	13.0	2.6*	17.1	48.7*	100.0	1069	137.479***
- 25-34	17.6	13.0	2.5*	17.9	48.9*	100.0	1060	
- 35-44	15.2	14.1*	1.5	18.0	51.2	100.0	1222	
- 45-54	15.1	12.6	1.6*	16.2	54.5	100.0	1198	
- 55-64	13.0	11.1	.9	17.9	57.0	100.0	966	
- 65+	13.5	6.6*	.0*	18.3	61.6*	100.0	1523	
Education level								
- Low education	12.7*	8.7*	.5*	18.9	59.2*	100.0	2915	130.392***
- Middle education	17.0*	14.0*	2.0*	16.5	50.5*	100.0	2656	
- High education	18.8*	13.2	2.4*	17.7	47.9*	100.0	1316	
Activity								
- Employee	15.5	14.5*	1.8	18.0	50.3*	100.0	3682	167.509***
- House person	13.6	9.0	2.4	17.9	57.1	100.0	587	
- Unemployed	18.1	9.2	1.8	20.3	50.6	100.0	271	
- Retired	13.8	6.7*	.2*	18.0	61.3*	100.0	1918	
- Student	22.3*	11.6	2.7*	12.6*	50.8	100.0	524	
Family composition								
- Single	9.4*	9.1*	1.1	21.4*	59.0*	100.0	1752	180.825***
- Couple, no children	14.8	10.4	.9	20.1*	53.8	100.0	1688	
-Couple with children	20.1*	14.2*	2.1*	14.1*	49.6*	100.0	2508	
- One parent with children	16.0	8.0*	1.5	13.7	60.8	100.0	401	
- Blended families	15.6	12.5	1.1	18.0	52.8	100.0	646	
City size (inhabitants)								
- Fewer than 5.000	24.2*	9.9	.5*	11.9*	53.5	100.0	628	146.097***
- 5.000 - 10.000	19.3	11.5	.7	15.6	52.8	100.0	538	
- 10.000 - 30.000	21.7*	10.9	.5*	15.6	51.3	100.0	797	
- 30.000 - 100.000	15.9	11.1	.9	17.1	55.0	100.0	976	
- 100.000 - 250.000	14.5	10.2	2.3	17.5	55.5	100.0	794	
- 250.000 - 500.000	10.5*	14.7	3.4*	13.9	57.5	100.0	619	
- 500.000+	14.6*	14.5*	2.3*	20.8*	47.7*	100.0	1474	
Country								
- Italy	22.5*	13.0	.6*	-	64.0*	100.0	1343	1097.258***
- France	18.6*	15.5*	3.0*	13.3*	49.6*	100.0	1378	
- Germany	18.1*	6.4*	.4*	36.5*	38.4*	100.0	1839	
- United Kingdom	8.1*	15.4*	2.6*	15.3*	58.7*	100.0	1398	
- Spain	7.4*	7.9*	.7	15.7	68.3*	100.0	1079	

Sig.=*=p<.05, **= p<.01, ***=p<.001.

* Standardized residuals higher than 2.0 and lower than -2.0 are statistically significant

Table 1: Type of television by personal and structural variables

What predicts the adoption of the new forms of television?

As we have seen so far the adoption of new forms of television is dependent on various personal and structural factors. But what are the main predictors for this adoption? To answer this question we present the results of logistic regression analyses (LRAs) which were carried out separately for each type of television in order to depict the profiles of their audiences (Table 2). LRAs were implemented with an entry method so that only the predictors that significantly increased the capacity of a given model to classify the observed data correctly were included in the final models. As the adoption of new forms of television is highly dependent on national policies and available infrastructures (see also Table 1), a country variable is included in the models to level out the differences that would otherwise be mirrored by other variables.

The predictive power of the models, measured by Nagelkerke's R2, ranged between 0.081 and 0.258 (from 8 to 26 %) The Hosmer-Lemeshow tests signalled a good fit for the new types of television, as values ranged between 0.124 and 0.942. Given the very broad diffusion of the traditional television, it was not surprising that the fit was not as good for the analogue terrestrial television.

Satellite television. LRA shows that men are more likely to possess a satellite television than women, and highly educated people are almost 1.5 times as likely to own satellite television as people with a low level of education. Family composition is also significantly related to the possession of satellite television: compared with single respondents, respondents living in a family made up of couples with children and in blended families are twice as likely to have a satellite television; there is also a statistically significant difference in the same direction between singles and couples without children. When looking at two spatial factors, city size and country, our results show that respondents living in small villages are more likely to subscribe to satellite television services than their urban counterparts. LRA also confirms that satellite television is more characteristic of French respondents than of the others.

Digital Terrestrial Television. Gender and age are not statistically significant predictors for the possession of digital television. Our model, however, shows that, compared with respondents with a low level of education, those with medium and, especially, those with high levels of education more typically have a digital television subscription. We also found that compared with the respondents who are actively participating in working life only retired people were less likely to have this type of television. Between employees and other activity groups (i.e. house persons, unemployed, and students) we were not able to detect any differences. When it comes to family composition, the model indicates only small differences. Compared with a reference group, i.e. singles, only respondents living in a family made up of couples with children were slightly more likely to have a digital television. City size is associated with the possession of this television type as well, although the variation between cities of different size is relatively small. Compared with the respondents of the

smallest villages (fewer than 5,000 inhabitants), who have the lowest level of adoption, the respondents of the largest cities (more than 500,000) are about 1.6 times as likely to have a digital television. Finally, the country of residence was tightly associated with adoption. Compared with the reference country, France, UK respondents especially, but also those of other nationalities, use digital television less often. This is a sign of the asynchronous adoption of digital television in Europe.

Internet Protocol TV. IPTV is still a novel form of television broadcasting in Europe. Owing to the small number of respondents, we found only two powerful predictors for its adoption. First, and predictably, the country of residence is strongly linked to its adoption, owing to differences in the availability of IPTV services in different countries. French respondents are far ahead of all other respondents in the use of IPTV, although the adoption rate of IPTV in general is still very low in France. The other predictor that remained significant is the level of education: respondents with a middle level of education are 3.5 times as likely to possess IPTV and highly educated people are no less than six times more likely to have an IPTV than respondents with a low level of education.

Cable television. Like satellite television, cable television is more popular with men than women. Table 2 shows that subscription to cable television is more typical of lowly educated than highly educated people. It is also a characteristic of cable television that its users are typically house persons. Regarding family composition, our model shows that single people are the most typical group of cable TV users. The difference regarding respondents living in families composed of couples with and without children, as well as one-parent families, is statistically significant, whereas there is no difference between singles and blended families. Cable television is also more widespread in large cities than in smaller towns and villages, a fact which is clearly related to the high building costs of wired infrastructure in remote regions. German respondents are almost five times and Spaniards 1.5 times as likely to possess a cable television compared with the French, who serve as the reference group. In addition, there is no difference between France and the UK. Italy did not provide cable television at the time of survey collection.

Analogue terrestrial television. The LRA model for analogue terrestrial television does not reveal major differences (although some of the differences are statistically significant) between men and women, education levels, activity categories or city sizes. People aged 45 or more are somewhat more typical owners of analogue television than younger age groups. Compared with singles, couples with children and mixed families are less frequent users of analogue television. The reason for this is that they have already started to use satellite television and digital television. LRA also shows that in those countries where newer forms of television are less common (especially Spain and Italy), there are still more users of analogue terrestrial television.

Predictors (reference groups in brackets)	Satellite TV	Digital Terrestrial TV	IPTV	Cable TV	Analogue Terrestrial TV
Gender	.755***	-	-	.752***	1.145***
*Age (*14-24)	-	-	-		1***
- 25-34	-	-	-		.941
- 35-44	-	-	-		1.134
- 45-54	-	-	-		1.497***
- 55-64	-	-	-		1.361*
- 65+	-	-	-		1.488**
Education level (low educ.)	1***	1***	1***	1***	1*
- Middle education	1.19*	1.388***	3.520***	.949	.844*
- High education	1.474***	1.770***	6.175***	.657***	.835*
Activity (Employee)	-	1***	-	1**	1*
- House person	-	1.082	-	1.653***	.741**
- Unemployed	-	.686	-	1.109	1.155
- Retired	-	.495***	-	.964	1.117
- Student	-	.880	-	.849	1.020
Family composition (single)	1***	1**	-	1**	1***
- Couple. no children	1.634***	1.021	-	.740**	.902
- Couple with children	2.041***	1.313*	-	.749**	.691***
- One parent with children	1.368	.732	-	.575**	1.168
- Blended families	2.042***	1.334	-	.918	.654***
City size (fewer than 5.000)	1***	1**	-	1***	1***
- 5.000 - 10.000	.881	1.501*	-	1.402	.919
- 10.000 - 30.000	1.102	1.317	-	1.362	.864
- 30.000 - 100.000	.855	1.457*	-	1.628**	.929
- 100.000 - 250.000	.702**	1.040	-	1.662**	.968
- 250.000 - 500.000	.613***	1.395	-	1.574**	.967
- 500.000+	.750*	1.660**	-	2.643***	.678***
Country (France)	1***	1***	1***	1***	1***
- Italy	.519***	.567***	.176***	.000[1]	1.970***
- Germany	.476***	.399***	.151***	4.777***	.613***
- United Kingdom	.470***	1.421**	1.165	.920	1.585***
- Spain	.199***	.415***	.269***	1.571***	2.209***
N	5599	5573	6882	5573	5572
Nagelkerke R^2	.081	.09	.10	.258	.109
Hosmer and Lemeshow Test	.327	.942	.342	.124	n.s.

p<.05 **p<.01 ***p<.001

[1] No cable television services provided in Italy

Note. Only variables that significantly increased the capacity of the model to classify observed counts correctly were included.

Table 2: Logistic regression models for the adoption of various television types (Exp(B))

Emotion with regard to television and its various forms

Up to now we have depicted the socio-demographic characteristics of the various audiences, providing a multivariate analysis that enabled us to predict the main variables responsible for the adoption of the different types of television. In respect of our research objectives the emotional fabric that these audiences experience in respect of television and its new forms remains to be explored. The emotion variable was not included in the same multivariate analyses with personal and structural variables as its capacity to distinguish the audiences of different television platforms was not as promising.

	Excitement		Distress		Depression		Contentment		Total	
	N	%	N	%	N	%	N	%	N	%
Enthusiasm	198	6.4							198	6.4
Interest	122	26.4							122	26.4
Curiosity	443	14.4							443	14.4
Joy/Pleasure	464	15.0							464	15.0
Surprise	123	4.0							123	4.0
Fun/Happiness	271	8.8							271	8.8
Anxiety			60	13.8					60	13.8
Irritation/ Annoyance			199	45.7					199	45.7
Frustration			81	18.6					81	18.6
Anger			95	21.8					95	21.8
Indifference					497	78.8			497	78.8
Boredom					134	21.2			134	21.2
Relaxation							211	18.3	211	18.3
Companionship							944	81.7	944	81.7
Total	3086	100.0	435	100.0	631	100.0	1155	100.0	5307	100.0

Note. 'I do not know', 'Nothing in particular' and 'NA' are not reported in the table

Table 3: Frequencies of emotion with regard to television and the application of Russell's model

In Table 3 we first report the emotional fabric as regards television in 2009 by applying Russell's circumplex model. The dominant feelings of audiences towards television appear to be highly positive as they are made up of excitement and contentment to the tune of 58.1% and 21.8% respectively. On the whole, negative feelings are really in the minority and account only for 20.1% of the whole emotion scale. These results however seem to contradict the emotional model of consumption, according to which the pleasure people feel when they consume a certain product diminishes over time (Elster, 1989). Thus they prompted comparison with the data collected in 1996. Producing this

comparison, we found that in these thirteen years excitement and distress increased whereas depression and contentment decreased, as shown in Table 4.

	Excitement		Distress		Depression		Contentment		Total	
	N	%	N	%	N	%	N	%	N	%
1996	2452	47.0	379	7.3	734	14.1	1650	31.6	5215	100.0
2009	3086	58.1	435	8.2	631	11.9	1155	21.8	5307	100.0

Table 4: Comparison of emotion as regards television according to Russell's model in 1996 and 2009.

Although the proportion between positive and negative emotions does not show relevant changes, the internal composition of emotions changes. This is probably related both to the change in the quality of programmes and to the scope that audiences attribute to the use of television as well as to their various styles of use. These results allow us to hope that the new forms of television will follow the trend of classical television in contradicting the emotional model of consumption.

Next, we crossed emotions with country in order to show the influence of culture on the general emotional fabric (Table 5). Excitement, which is clearly the most common emotional feeling associated with television in every country, is much less in France and Italy than in Spain, Germany and the UK.

	Italy	France	Germany	UK	Spain	Total
Excitement	47.6*	51.3*	63.9*	63.0*	64.6*	58.1
Distress	11.6*	6.6	5.9*	8.2	9.1	8.2
Depression	10.1	19.6*	12.1	9.5*	8.7*	11.9
Contentment	30.8*	22.6	18.2*	19.3	17.5*	21.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	1144	930	1367	948	919	5308

Chi-square 200.145, df=12, p=0.0001.

*Standardized residuals higher than 2.0 and lower than -2.0 are statistically significant

Table 5: Emotions associated with TV by country in 2009 (%)

Feelings of distress are more commonly reported by Italian respondents (11.6%), whereas Germans (5.9%) feel less distressed than the other respondents. Among those who reveal feelings of depression, the proportion of French respondents is rather high (19.6%) and it is almost double if compared with Spain (8.7%) and the UK (9.5%). Finally, among those who declare feelings of contentment Italian respondents greatly outnumber the respondents of other nationalities, especially Germans and Spaniards.

If we compare these figures with those derived from the 1996 data (Table 6), the feeling of excitement has increased in all the countries considered, except Italy, where it shows a clear decrease. In these thirteen years distress has grown in Italy and in the UK, and more moderately in Spain and Germany, whereas in France it shows an obvious contraction. Feelings of depression have decreased everywhere except France, where they grew. The emotion of contentment decreased in every country, however, with the sole exception of Italy, which has registered an increase in it. This means that whereas Germany, Spain and the UK have a common trend, Italy and France prove to be the exceptions. In Italy the excitement decreases in favour of the increase of contentment, meaning that Italian audiences have probably changed their attitude towards television, which has become less relational and more instrumental (use of the television as an aid to sleep or a relaxing/companionable tool). In France, where feelings of distress and depression have increased, it seems that audiences show more evident signs of discontent with television in the period considered.

	Italy	France	Germany	UK	Spain	Total
Excitement	50.6	47.3	40.2*	57.9*	51.4	48.6
Distress	7.7	10.1*	5.1*	5.2*	7.0	7.0
Depression	15.3	12.8	12.7	13.0	14.7	13.7
Contentment	26.5*	29.8	42.8*	23.8*	26.9	30.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	1250	1078	1361	868	817	5374

Chi-square 150.079, df=12, p=0.0001.

*Standardized residuals higher than 2.0 and lower than -2.0 are statistically significant

Table 6: Emotions associated with TV by country (%) in 1996

To answer our second research question, we now analyse emotion regarding television by distinguishing its new forms. Table 7 reveals that when different forms of television are compared, no major differences in emotional associations emerge from the data, except those regarding the feelings of contentment.

It seems that the users of IPTV and digital terrestrial television are more content with their television than those who watch analogue television. Small differences remind us that different television technologies are to some extent mere distribution channels, and emotions are perhaps related more to content, services and the social context of viewing. In fact, more individualized services and content, as well as the possibility to interact with others, are also those properties that are expected of IPTV by its consumers (Shin, 2007). Finally, the table shows that the users of analogue terrestrial television report feelings of contentment less often than others. This may be an indication of their awareness of the better quality of digital broadcasting and the wider selection of related services which are not yet available to them or which they have not yet taken up.

	Satellite TV	Digital Terrestrial TV	IPTV	Cable TV	Analogue Terrestrial TV	Total
Excitement	58.9	56.0	52.2	57.9	59.0	58.3
Distress	6.9	7.8	4.3	6.7	8.8	7.9
Depression	10.3	9.6	8.7	11.7	12.8	11.7
Contentment	23.9	26.7*	34.8*	23.7	19.3*	22.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
N	837	645	69	948	2461	5150

Chi-square 38,172, df=12, p=0.0001.

*Standardized residuals higher than 2.0 and lower than -2.0 are statistically significant

Table 7: Emotions associated with TV by the five types of television (%)

Discussion

Our first hypothesis regarding the feasibility of the portraits of the new TV poly-audience was confirmed by our data. In fact, by means of bivariate and multivariate analyses we were able to depict the structure of the socio-demographic characteristics of the audiences of the new forms of television and also the main predictors of their adoption. Our second hypothesis on the restructuring of the emotional fabric of audiences regarding television also received a positive answer from our data, although with some limitations. In fact our data showed that there are significant differences only regarding the feelings of contentment and only regarding digital terrestrial, IPTV and analogue television. It is likely that the novelty of these new forms of television has not yet allowed complete restructuring of the emotional fabric regarding the various forms of TV. Second, the high feeling of contentment with digital terrestrial television and the IPTV may relate to better quality of digital broadcasting and to the opportunity to choose the time and place of TV viewing especially when using IPTV. The small number of respondents with IPTV, however, requires us to be careful when interpreting the results. Furthermore, it is an interesting result that the emotional model of consumption does not work in the case of television.

Clearly, however, a virtuous circle with qualitative research is necessary for appropriate interpretation of the influence of the cultural variable on the emotional fabric regarding television and its new forms. Why is excitement, the most common emotional feeling associated with television in every country, much less widespread in France and Italy than in the other countries? Why do Italians report more feelings of distress and contentment? Why do the French report more feelings of depression?

Variations in the content of programmes and TV commercials watched in these five countries are likely to be reflected in the differences detected. For example, some studies argue that the UK viewers look for joy and humour from

television advertisements, whereas the French audience wants to watch more artistic and dreamlike advertisements (Whitelock & Rey, 1998). A comparison of television viewer types (Espe & Seiwert, 1986) also supports the idea that Germans and Britons, who are more interested in sport programmes (see also Livingstone & Bovill, 2001, 149), associate more feelings of excitement with television.

A study by Hargreaves and Mahdjoub (1997) provides one, but definitely not the only, explanation for the relatively high proportion of depressed audiences in France. When ethnic minorities in France were interviewed, many interviewees of the second generation reported being indifferent towards the acquisition of satellite television, which is particularly common in France (see also Table 2), both because they expected that their parents would control the selection of channels and because of their poorer command of their home country's language. A further explanation can be found from the fact that France respondents were the most disappointed in the worsening of the quality of TV programmes already in the 1996 survey (Fortunati & Manganelli, 1998, p.165).

Future research should look, first of all, at television use in a more complex way by investigating programmes, content, fluxes, and meanings. More generally, the dimensions and practices of the use of television should also be explored in a broader context, by considering time of consumption, contexts and modalities of use (personal, collective, familial). Second, the study should be situated in the broad ecology of media socio-technical systems in everyday life, analysing how the division of labour among them works and how they influence each other, intertwining and resonating.

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