Cultural proximity and interactivity in the processes of narrative reception

María T. Soto-Sanfiel*

Departament de Comunicació Audiovisual i Publicitat,
Facultat de Ciències de la Comunicació,
Universitat Autònoma de Barcelona, Campus UAB,
Edif. I, 08193 Bellaterra, Barcelona, Spain
Email: MariaTeresa.Soto@uab.es
*Corresponding author

Juan-José Igartua

Department of Sociology,
Faculty of Social Sciences,
University of Salamanca, Communication Campus Unamuno,
Edificio FES, 37007 Salamanca, Spain
Email: jigartua@usal.es

Abstract: This study aims to further our understanding of the reception processes associated with the consumption of new interactive audiovisual products by individuals from different cultures. Through a quasi-experimental research, it analysed reception of a film produced in Germany, in two different European socio-cultural contexts (Spain and The Netherlands). A 2 × 2 factorial design was used, the independent variables being cultural proximity (high, low) and the modality in which the movie was viewed (interactive, non-interactive). Cultural proximity influenced the processes of evaluating the movie, but viewing modality showed no significant differences. Identification with the protagonists of the movie was associated in both cultural contexts with enjoyment, self-perceived physical sensations and emotional induction. These results are relevant for explaining how receivers from different cultures react to audiovisual productions of different origin and to new forms of consumption.

Keywords: cross-cultural reception; interactivity; psychological processes; narratives; identification; cultural influence.

Biographical notes: María T. Soto-Sanfiel is an Associate Professor at the Audiovisual Communication and Advertising Department at the Universitat Autonoma de Barcelona. Her main research interests are media psychology, narratives, interactivity, cross-cultural reception of media messages, science communication, and voice/audio reception. In 2004, she received the National Research Award on Mass Communication by the Catalonian Government. She also directs the IPTV inscience.tv (http://inscience.tv) and the IP Radio c-radio.org (http://c-radio.org), both dedicated to the dissemination of scientific knowledge. She has directed science TV documentaries and worked as a journalist and audiovisual producer too.

Juan-José Igartua is a Professor of Media Psychology at the University of Salamanca (Spain). His research focuses on the analysis of media effects and, in particular, entertainment media theory, narrative persuasion, analysis of socio-cognitive effects of news frames, health communication and media and immigration. He has published research articles in prestigious peer-review journals such as the *Journal of Communication*, *Communications – The European Journal of Communication Research*, *Journal of Media Psychology* and *Journal of Health Communication*, among others.

1   Introduction

Technological transformations have led to the emergence of new networked communication models and an extraordinarily diverse and flexible media panorama. The advent of global hypertextual connection (diversified by cultures) and the free circulation of the most varied of cultural products, aimed not only at specific audiences but even at their own moods (Castells, 1997), has already occurred in advanced societies, such as those of the European Union. So, there is an urgent need to continue furthering our knowledge of the dynamics related with the consumption of the audiovisual manifestations (and especially the new interactive ones) that travel on these networks and are accessible to heterogeneous audiences.

One of the questions that most urgently needs to be answered is whether there are differences between the psychological reactions of receivers that, despite being immersed in different social and cultural environments, consume the same products of audiovisual fiction (in particular interactive narratives) that are disseminated on the networks. However, even in the field of research into the effects of conventional media, there have been few scientific precedents that have observed the reception processes associated with the consumption of narratives by audiences from different cultures. The study of reference is that by Katz and Liebes (1984), which explored the reception of the US television series *Dallas* by groups of audiences in the USA and Israel (Israeli Arabs, Russian immigrants, first and second generations of Moroccan immigrants and members of a kibbutz). Their research found evidence for the consumption of television fiction being a negotiation process between the story shown onscreen and the receptors' cultures, and that this occurs in interaction with the individuals' own psychological characteristics. The results of their study support the existence of universal structures, themes or ideas that are known, shared and applied to audiovisual reception by audiences in any cultural context. However, they also add that receivers select, perceive, interpret and evaluate TV shows in accordance with their local cultures and personal experiences. In fact, receivers incorporate these experiences both in their minds and in their lives, in different ways, either through critical appraisal of the story or through identification with the characters too (Katz and Liebes, 1984).

It is somewhat curious to note the lack of interest shown by European researchers in studying the reception of the region's cinematographic production among audiences from the different nations that make up the European Union. It is even more so when we observe that, in order to compete with the powerful North American industry and to develop a potent and competitive market of its own, European audiovisual policies have proposed regulations and programmes (e.g., Euro-Aim, MEDIA Programme and

Eurimages) that have encouraged the production of audiovisual projects and for them to be broadcast on EU screens (fundamentally thanks to the implementation of obligatory quotas). A movie created in Germany, for example, is consumed indistinctively by people in Spain, Holland and/or Germany itself. Nevertheless, other than revenue figures, we do not know whether there are differences or similarities between the reception processes of these individuals, and their effects. Therefore, there has been a lack of research observing the reception of European movies in the member states. It could be claimed that much of the absence of transnational or cross-cultural research of the reception of European fiction in the region is due to the barriers imposed by different languages (Bergfelder, 2005).

This study aims to further our knowledge of the peculiarities of the reception processes associated to new networked interactive audiovisual proposals by individuals from different cultures. While being aware of the conceptual and methodological difficulties involved in producing reliable transcultural research, the main aim of this study is to observe the reception of a piece of interactive fiction produced in Germany, in two different European social and cultural contexts (Spain and Holland). Although it is not the main objective, this research also reveals the existence of relations between the characteristics of individual consumption (psychological) of these movies and those of the context (sociological) to inspire future studies both of the influence of the cultural environment on the individual consumption of interactive fiction and of the relations between specific and contextual properties in the reception of said products. Likewise, the results of this study could be used to further our understanding of the dynamics of the consumption of European audiovisual products on a community, regional and national level.

2 Interactive fictions

Interactive fictions are one of the postmodern audiovisual manifestations. In these products, the receivers acquire an active role through being invited by the system to perform actions designed to influence the storyline or consumption experience. At certain moments, the action is detained or fragmented, and the system asks the receiver to make selections in order to continue (generally using a predesigned repertory of options). A large amount of these fictions enables the receivers to decide the storyline and the circumstances that the characters experience (Laurel, 1991; Lee et al., 2010; Meadows, 2003; Murray, 1997; Soto, 2001; Soto-Sanfiel et al., 2009, 2010, 2014, 2011; Vorderer et al., 2001).

Because it is expensive and complex to produce, interactive fictions are not abundant. In fact, they use to be artistic or experimental productions. However, they are a magnificent platform for observing the forms of relationship between new audiovisual products that require interactivity and their receivers, because they enable the exploration of the effects of active participation of receivers in consumption. In general, it is accepted that the emergence of situations of interactive consumption is challenging communication theories (Vorderer, 2000). For example, it is believed that interactivity fosters not only interest among audiences in altering and manipulating content, but also the need to co-participate in authorship, which would redefine the traditional author-text-audience relationship (Cover, 2006). On a psychological level, there is evidence that interaction with content affects emotional and cognitive processing (Wise and Reeves, 2007), the

user's implication (Johnson et al., 2006), and the motivation to process information and make use of cognitive resources (Hupfer and Grey, 2005; Tremayne and Dunwoody, 2001). It is also known that interaction produces greater excitation through consumption (Fortin and Dholakia, 2005), more positive evaluations and pleasure with the content (Ko et al., 2005; McMillan et al., 2003; Sicilia et al., 2005) and promotes the audience's cognitive involvement (Liu and Shrum, 2003).

2.1   Research into interactive fictions

There have been few specific empirical studies of the reception of interactive fictions. In an early study, Soto (2001) reports that interactive narratives generate interest, expectations and a high level of gratification. There is also an association between affective-emotional or cognitive aspects and the gratification gained from consumption. Among the former, she identifies the capacity to experience another's life, to establish affective relations with the characters, to project what the participants feel at each time onto the characters and the capacity to decide what happens to them. Of the cognitive aspects that explain gratification, Soto identifies the capacity of these narratives to stimulate intellectual or imaginative thinking, to create interesting and fun mental exercises, to change passive attitudes into active ones, to experiment with the feelings of other humans without having to suffer emotional experiences, to focus the story on certain aspects, and to master the system.

Meanwhile, Vorderer et al. (2001) observe the perception of entertainment depending on the degree of interactivity and the cognitive capacity of the receivers. The researchers find a relation between level of education and enjoyment gained from interaction: the higher the level of education, the greater the enjoyment. They also find that, due to the capacity to interact, individuals with a high cognitive capacity display an increase in entertainment, while those with a lower capacity feel more empathy for the characters and greater suspense (although they have a more positive evaluation of the non-interactive version of the movie then the interactive one). Interactivity, in consequence, is more appreciated by individuals with a higher level of education.

In another study, Soto-Sanfiel et al. (2009) explore the relation between content (happy or tragic), the capacity to interact or not, and perception of enjoyment, entertainment and gratification. The researchers find, in coherence with other studies (Lee et al., 2010; Vorderer et al., 2001), that interactivity, in itself, is not a factor that affects the perception of enjoyment of fiction. However, they do find that the combination of the modality of fiction with the content does affect enjoyment: interactive versions of movies with a happy ending provoke a greater degree of enjoyment, pleasure and gratification than those with sad endings. Therefore, if receivers are responsible for choosing a storyline with a happy ending for the character, their evaluation of the consumption is more positive.

Lee et al. (2010) observe the modality of consumption (individual or group) in interactive and non-interactive fiction. The researchers find that although the interactive version produces greater curiosity, discussion and laughter than the non-interactive one, interactivity does not produce differences in the excitation felt during consumption, enjoyment, involvement with the story or the possibility of interacting.

The study by Soto-Sanfiel et al. (2010) explores a highly specific factor (identification with the characters) in interactive and non-interactive fiction. The researchers find that identification is more intense for the interactive movie than for the

non-interactive one. Moreover, that interactivity produces greater cognitive-emotional empathy for the characters among receivers and a stronger feeling of becoming like them.

In another study, Soto-Sanfiel et al. (2011) observes emotional experience according to the viewing modality (interactive or non-interactive) and the content (happy or sad). The researchers find that interaction with the content can affect the intensity with which some emotions are experienced. Receivers of the interactive version of a movie experience a greater degree of interest, curiosity, surprise, fear and guilt than those of the non-interactive version. Thus, they conclude that interactivity does not alter the direction of the emotional experience produced by the content, although it can alter the intensity. They also find a relationship between the emotional experience and the resolution of the interactive movie. Both the happy interactive ending and the sad interactive ending produce, respectively, more intense happiness and sadness than the non-interactive versions. The study finds that users' emotional responses to interactive movies with sad endings (sadness) are more intense than their response (happiness) to those with a happy ending. They also conclude that the increase in specific emotions, such as sadness and guilt, caused by interactive movies, pleasures and gratifies the receivers, but the same does not occur with such emotions as shame or pity, which reduce the enjoyment (Soto-Sanfiel et al., 2011).

Finally, the study of Soto-Sanfiel et al. (2014) explores how users' personalities affect their responses to interactive narratives. The researchers analysed the relationship between the personality traits (Big Five) and those already identified relevant variables in interactive narrative reception: identification with characters, enjoyment, self-perceived physiological sensations, emotional experience and content. Their main results suggest that personality influences users' responses to narratives. That is to say: interacting with the movie provokes different effects depending on users' personalities. Moreover, they show that the effects of the type of content (happy vs. tragic) of an interactive fiction also depend on personality. However, they find a very interesting result regarding the role of interacting with the content and its psychological effects: in contrast to non-interactive storytelling, interactivity acts as a 'strong' situation, which attenuates the effects of interpersonal differences. Interactivity weakens the influence of personality on the relationship that users establish with the narrative content. All together, these results shed light on the role of individual differences in the reception of interactive fictions, challenge studies regarding the effects of interaction that do not consider interpersonal variability, and reinforce the importance of personality in the construction of models for understanding the effects of interactivity.

3   Rationale and hypothesis

To move on in the determination of the degree of generalisation of the theoretical assumptions in association to the reception of audiovisual fiction by receivers from different cultures, this study recurs, first, to empirical evidence on the influence of the cultural context (in addition to the already cited conclusions by Katz and Liebes (1984). In this regard, there are some indications that cultural proximity, due to the effect of personal resonance, could affect reception processes. It is believed, for example, that receivers could consider the situations, characters or events in audiovisual fiction to be culturally close. It is also sustained that these stories could activate individual or collective autobiographic memories, which means we can expect transcultural differences

in the reception, impact or enjoyment of narratives (Igartua and Lozano, 2011). Finally, it is also believed that both personal resonance and cultural proximity are positively related: subjects whose personal memories are activated during the reception of a narrative consider the story to be culturally close or proximate (Igartua and Muñiz, 2008; Igartua and Páez, 1997; Larsen and Lázsló, 1990).

In relation to the appreciation and impact of works of dramatic art, Larsen and Lászó (1990) find that the most historically and culturally proximate readers to a drama showed greater levels of personal resonance, and more vivid or personal memories, than those who were less proximate. They also experience greater implication with the content in terms of the activation of personal memories and enjoyment. Meanwhile, Adrián et al. (1995) find that subjects that are more proximate to the content of a series of folk songs report a more accentuated affective reaction and more positive aesthetic appreciation. Likewise, Igartua and Páez (1997), when observing Spanish subjects exposed to a dramatic feature film about the Spanish Civil War, find that personal resonance is associated to a greater induction of negative affectivity with regard to what is viewed and to greater enjoyment or a more positive evaluation of the movie (which means that the enjoyment of a narrative may depend on their capacity to activate memories of personal experiences). Finally, in coherence with this, Igartua and Muñiz (2008) find that cultural proximity is associated to greater enjoyment during the reception of movies of various genres.

The above leads us to believe that:

H1 Cultural proximity to a movie will influence reception processes. It can thus be expected that the participants from Holland (high cultural proximity), as opposed to those from Spain (low cultural proximity) will present greater identification with the characters of a German movie, a better evaluation of the movie, greater induction of emotions and perceived physical sensations and greater enjoyment from the consumption of the movie.

With respect to the other factors observed in this study, it is believed that the results found in monocultural studies will be confirmed by this one. So, in relation to interactivity (subjects' capacity to use plot-changing options during consumption) and its effect on identification with the characters, it is not expected any interaction effect on identification depending on the country, although, in coherence with the study by Igartua (2010):

H2 The modality in which the movie is viewed will influence identification with the characters. It is expected to be found that the interactive version as opposed to the non-interactive one will increase the level of identification with the characters.

Moreover, and in agreement with previous studies of enjoyment and evaluation of interactive movies (Lee et al., 2010; Soto-Sanfiel et al., 2009; Vorderer et al., 2001), it can be expected that:

H3 The modality in which the movie is viewed will not influence the evaluation of the movie and enjoyment of the same. Neither a better evaluation of the movie nor greater enjoyment is expected to be found for the interactive version than for the non-interactive one.

Likewise, and in agreement with the results for the positive relation between interactivity and emotional induction in very specific contents found in the study by Soto-Sanfiel et al. (2011), it is predicted that:

H4 The modality in which the movie is viewed will not, in itself, influence the induction of emotions or the perception of physical sensations while viewing the movie. A similar emotional impact and perception of physical sensations is expected while viewing the interactive version of the movie in comparison with the non-interactive version.

Finally, and in the light of evidence from the monocultural studies by Igartua (2010) and Igartua and Muñiz (2008):

H5 A positive relation is expected between identification with the characters and the other reception processes considered (induction of emotions, perception of physical sensations and enjoyment) in both countries in which the study is conducted (Holland and Spain). Hence, the greater the identification, the greater the induction of emotions, the greater the perception of physical sensations and the greater the enjoyment.
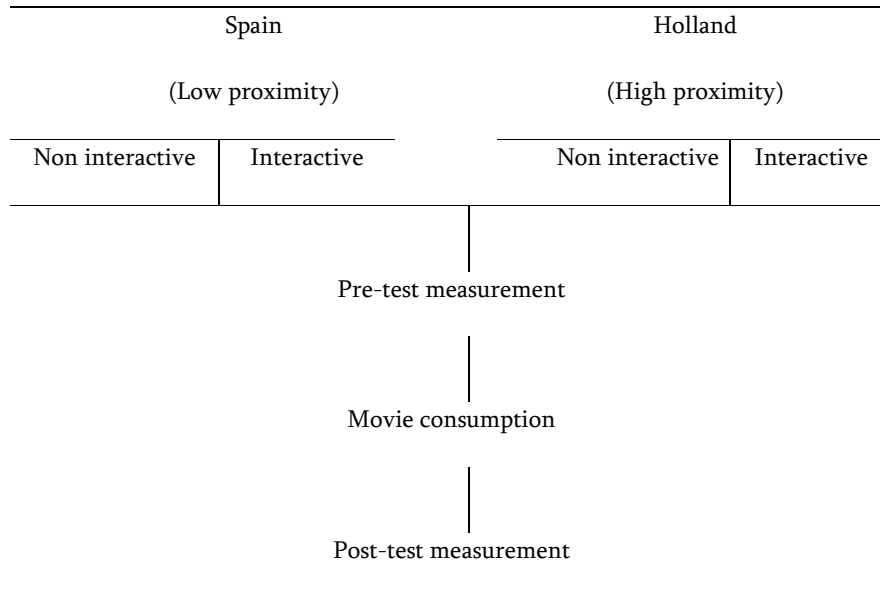
4 Method

4.1 Participants

One hundred eighty university students, 96 from Spain and 84 from The Netherlands participated in the research. 63.3% were women and the average age was 20.37 years ($SD = 2.70$). All of the subjects voluntarily subjected themselves to the experience. The Dutch students, belonging to the Faculty of Social Sciences at the *Vrije Universiteit Amsterdam*, where the study was conducted, were paid (as required by the centre's regulations for student collaboration in empirical tests). The Spanish students, from the Faculty of Communications Sciences at the *Universitat Autònoma de Barcelona*, collaborated for free. The participants were told that they were going to take part in a study of audiovisual reception. The selection criteria employed for participation was that they had never before seen the movie used in the research.

4.2 Design and procedure

Quasi-experimental research was performed with a 2×2 between-subjects factorial design, the independent variables being the country where the study was performed, or cultural proximity (high proximity, Holland, versus low proximity, Spain), and the modality in which the movie is viewed (interactive versus non-interactive). Figure 1 shows the experimental design and procedure of the study.

Figure 1 Experimental design and procedure of the study

Spain		Holland	
(Low proximity)		(High proximity)	
Non interactive	Interactive	Non interactive	Interactive

Pre-test measurement

Movie consumption

Post-test measurement

Interactive and non-interactive versions were constructed of a story on the basis of scenes from the movie *Lola Rennt*, by German director Tom Tykwer (1998). The subjects were randomly assigned to one of the two conditions. In both, however, the content of the movie was identical. In the interactive version, the participants had to decide how the story would continue by choosing between options. At four different points of the movie, the action paused and a screen appeared with two alternatives for how the plot would continue. When the subjects had decided on an option, the movie restarted. The selection of the plot was simulated because the questions were formulated to give the impression that the participants were deciding on the plot, but all of the different options actually led to the same content. In the non-interactive version, the participants watched the movie in lineal, conventional fashion.

The movie, considered an independent production of European cinema (Bergfelder, 2005) was chosen because it was made in a third European country (Germany), which made it possible to observe the effect of cultural proximity on its reception, and also because it could be manipulated and adapted to different experimental conditions without detriment to aspects of its aesthetics or plot. Following the most common habits for the consumption of movies in each country, the version used in Spain was dubbed into Spanish, while the version used in Holland was in the original German language with Dutch subtitles.

The general plot of the movie revolved around the main character's attempts to get a large amount of money in a short period of time in order to help her boyfriend, who had to pay a debt to a Gangster. After several unsuccessful attempts, the main character goes to a casino where she wins at roulette thanks to her supernatural mental powers. Meanwhile, her boyfriend has managed to pay the debt by his own means, so the money she won is no longer necessary. At the end of the movie they meet up again, feeling happy and looking ahead to the future, the protagonist carrying all the money in a bag.

The movie was viewed individually on computers equipped with earphones and 19 inch screens. In the Spanish sample, the participants went in groups into the experiment room; in the Dutch one, they did so individually. Once at the screens, the subjects were presented with an application containing a pre-movie questionnaire, after which they watched the movie (interactive or non-interactive) and then answered another questionnaire. The first questionnaire (pre-test measurement) contained a series of control variables: sex, age, preference about the consumption of movies as a form of leisure, consumption of movies on television, reasons for watching movies on television, frequency of movie attendance at the cinema and a personality test (Big Five Questionnaire; Costa and McCrae, 2002). The personality test was administered because the research formed part of a broader study that took other factors into consideration (see Soto-Sanfiel et al., 2014). Immediately after measuring said variables, the participants in the interactive version received the following instructions: "the personality test is over, thank you for your answers. We shall now show you the movie; please be aware about your feelings and emotions as you watch the movie. In this movie you will have to decide between options about how the story will continue. Your options will enable you to construct your own version of the story. The storyline of the movie is your decision". Meanwhile, those watching the non-interactive version received the following instructions: "the personality test is over, thank you for your answers. We shall now show you the movie. Remember to think about your feelings and emotions as you watch". When the movie ended, the participants measured the dependent variables by means of different self-report scales.

The total duration of the experiment was, in both conditions, almost 40 minutes. The languages used for the questionnaires, instructions and option screens were Spanish and Dutch.

4.3   Variables and instruments

The study measured dependent and control variables. The former were: identification with the characters, evaluation of the movie, physical sensations perceived, emotions felt while viewing the movie, and enjoyment. The control variables were, as well as sex and age, preference felt towards the consumption of movies as a form of leisure, consumption of movies on television, reasons for watching movies on television and frequency of going to the cinema. The following is a detailed explanation of the measurement of said variables.

4.3.1   Dependent variables

Identification with the protagonists was evaluated using a modified version of the EDI scale by Igartua and Páez (1998) and Igartua (2010). Said scale was originally formed by 17 items whose response format was a five-point intensity scale (from 1 = nothing, to 5 = a lot). The present study used the improved version by Igartua and Barrios (2012), who conducted a study to assess the validity of the scale. The scale used in the present study was preceded by an announcement ("we shall now ask you some questions about the characters in the movie") and was made up of 11 items (example items: "I tried to see things from the point of view of the protagonists", "I felt affectively implied in the feelings of the protagonists", "I felt like I was one of the protagonists"), on the basis of which a compound index of identification with the protagonists was created, which

averaged the values obtained by said items (α = .88; M = 3.25, SD = 0.71). In the present study, we decided to use a generic formulation of the items, rather than compiling the items in accordance with some specific character. Igartua (2010) and Soto-Sanfiel et al. (2010) used a similar procedure and obtained satisfactory results. Meanwhile, Moyer-Gusé and Nabi (2010) measured identification separately for each protagonist (male and female) in a television series (using the Cohen scale, 2001), observing that the correlation between the indicators of identification with both characters was very high (r = .69), and thus constructed a global indicator of identification by adding the scores from both scales. All of this justifies the use in the present study of the generic formulation of items (see also Igartua and Lozano, 2011).

As for *Evaluation of the movie*, the participants had to evaluate the movie as a whole ("what did you think of the movie?") using a semantic differential made up of 12 bipolar scales (five points, from 1 to 5) defined at their extremes by opposite adjectives such as 'unpleasant-pleasant', 'bad-good', 'long-short', 'fun-boring', etc. (see Igartua, 2010; Igartua and Páez, 1998). A factor analysis of principal components (with Varimax rotation) extracted four factors that explained 72.24% of the variance. On the basis of said analysis, four evaluation indexes were created for the movie. The first factor was considered a factor of 'overall evaluation' as it grouped the following bipolar scales: original-typical, entertaining-non-entertaining, stimulating-non-stimulating, fun-boring, profound-superficial, pleasant-unpleasant and fast-slow (α = .87; M = 2.80, SD = 0.88). The second factor referred to the cognitive dimension (clear-confusing, comprehensible-incomprehensible; α = .75; M = 3.02, SD = 0.95). The third factor was only defined by the bipolar scale 'credible-non-credible' (M = 3.00, SD = 1.11), and the fourth was composed of the scales 'good-bad' and 'long-short' (r = .32, p < .001; M = 3.38, SD = 0.83).

As for *self-perceived corporal sensations*, the participants had to express the extent to which they had felt, while watching the movie, 14 specific corporal sensations (increase in breathing rate, sweaty hands, etc.). The response format was a five-point scale (from 1 = "I didn't get that feeling", to 5 = "I got that feeling intensely"). The reference used for the selection of the corporal sensations was the Pennebaker Inventory of Limbic Languidness inventory (PILL; Igartua and Páez, 1998). A factor analysis of principal components (with varimax rotation) extracted three factors that explained 54.15% of the variance. On the basis of the results of this analysis, three compound indexes were created. The first index reflected physical sensations related with 'tension or anxiety' (increase in breathing rate, tight chest, lump in throat, freezing up, muscular tension and having sweaty hands; α = .81; M = 2.36, SD = 0.77). The second index referred to a feeling of 'diffuse discomfort', which was associated to feeling flushed, dizzy or hot, nervous ticks and having a bad taste in the mouth (α = .69; M = 1.56, SD = 0.60). The third index referred to feelings of nausea and cold (r = .32, p < .001; M = 1.42, SD = 0.64).

The *emotions felt* were evaluated using a modified version of the Izard differential emotions scale (Igartua and Páez, 1998). The participants had to state how much they had felt each of the 11 emotions presented (interest or curiosity, happiness, anguish, etc.). The response format to evaluate affective intensity was a five-point scale (from 1 = "I did not feel that emotion", to 5 = "I felt that emotion very intensely"). A factor analysis of principal components (with varimax rotation) extracted 2 factors that explained 48.88% of the variance, which enabled the creation of two indexes of emotions felt: negative

emotions (revulsion, rage, shame, disdain, fear, sadness, guilt and anguish; α = .80; M = 3.22, SD = 0.77) and positive emotions (α = .63; M = 1.98, SD = 0.69).

To measure *enjoyment* a scale consisting of 8 items was created, to be evaluated on a 5-point scale (from 1 = nothing, to 5 = a lot): "I liked the movie", "I enjoyed the movie", "I was entertained by the movie", "I was gratified by the movie", "the equipment for viewing this movie seemed adequate to me", "I would watch this movie if it was shown on television", "I would watch this movie on my computer" and "I would pay to see this movie". A factor analysis of principal components (with varimax rotation) extracted two factors that explained 76.02% of the variance. The first factor contained all of the items in the scale apart from the one related with the adequacy of the equipment, and was therefore called 'enjoyment' (α = .93; M = 3.01, SD = 1.04).

4.3.2 Control variables

The *consumption of movies as a form of leisure* was evaluated using the item "I like to be entertained by movies", using a 5-point scale, from 1 'nothing', to 5 = 'a lot' (M = 4.29, SD = 0.76).

On the *consumption of movies on television* it was asked: "what percentage of the total television that you consume corresponds to movies?", the response options being, 1 (from 0 to 20%), 2 (from 21 to 40%), 3 (from 41 to 60%), 4 (from 61 to 80%) and 5 (from 81 to 100%). The most chosen option was 'from 0 to 20%', given by 42.8% of the participants (M = 1.95, SD = 1.03).

To find out the *Reasons for watching movies on television*, a scale consisting of 7 items was constructed (to relax, to be entertained, to learn, etc.), which used answers in a 5-point format (from 1 'nothing', to 5 'a lot') to the general question: "by consuming movies on television, you are able…" A factor analysis of principal components (with Varimax rotation) extracted two factors that explained 65.25% of the variance. The first factor was composed of three reasons (to be informed, to learning and to relax) and reveals a eudaimonic motivation (α = .63; M = 3.04, SD = 0.77), according to the definition proposed by Oliver and Raney (2011) and Igartua and Barrios (2013). The second factor is associated with hedonic motivation (α = .63; M = 4.02, SD = 0.61) and was made up four reasons (to be amused, to pass time, to escape and to be entertained).

To find out about the frequency of movie attendance at the cinema, participants were asked: "how many times a month do you go to the cinema?", the possible answers being, 1 (from 0 to 2 times), 2 (from 3 to 4 times) and 3 (more than four times). The most commonly chosen option was 'from 0 to 2 times', given by 83.3% of the participants (M = 1.19, SD = 0.46).

5 Results

5.1 Preliminary analysis

It was tested whether there were any differences between the participants assigned to the two viewing conditions (interactive movie versus non-interactive) in terms of the control variables. The only statistically significant difference was obtained for the age variable (t(178) = 4.39, p < .001). It was also tested whether there were any differences between the participants from Holland and Spain in terms of said control variables. Statistically

significant differences were obtained for the variables: sex (χ^2 [1, N = 180] = 25.22, p < .001), age (t[124.38] = –3.95, p < .001), eudaimonic motivation for watching movies on television (t[174] = –6.81, p < .001), hedonic motivation (t[177] = –2.15, p < .033) and frequency of going to the cinema (t[165.21] = 2.46, p < .015). Among the participants from Holland, in comparison with those from Spain, there were fewer women, older people, greater eudaimonic and hedonic motivation for watching movies on television, and less frequency of going to the cinema. In light of these results, we decided to test the study hypotheses using the analysis of covariance (ANCOVA) test, including as covariables those control variables for which there were significant differences between the participants from Holland and Spain (sex, age, reasons for watching movies on television, and frequency of going to the cinema).

5.2   Testing the hypotheses

To test hypotheses 1 to 4, we conducted several analyses of covariance, including as independent variables the modality in which the movie is viewed (interactive version versus non-interactive version) and cultural proximity with respect to the movie (on the basis of the country where the study was conducted, The Netherlands, high proximity, versus Spain , low proximity). There was not a significant interaction effect between both variables, other than a trend effect for the variable "adequacy of the equipment for viewing the movie" ($F_{\text{modality x country}}$ [1, 167] = 3.43, p < .065, η_p^2 = .020).

Hypothesis 1 alluded to the effect of cultural proximity on reception processes, with better results expected for Holland than for Spain. It was found that the participants from Holland, compared with those in Spain, did indeed evaluate the movie more positively (F_{country} [1, 167] = 52.49, p < .001, η_p^2 = .239) and also found it more comprehensible and clearer (F_{country} [1, 167] = 22.07, p < .001, η_p^2 = .117). They also considered that the equipment for viewing the movie was more adequate (F_{country} [1, 167] = 13.08, p < .001, η_p^2 = .001). However, it was the participants from Spain that enjoyed the movie the most (F_{country} [1, 167] = 6.02, p < .015, η_p^2 = .035), that identified most with the characters (F_{country} [1, 167] = 3.26, p < .073, η_p^2 = .019), considered it most credible (F_{country} [1, 167] = 37.03, p < .001, η_p^2 = .182) and found it 'good and short'(F_{country} [1, 167] = 10.62, p < .001, η_p^2 = .060), and at the same time experienced greater tension or anxiety (F_{country} [1, 167] = 5.06, p < .026, η_p^2 = .029), diffuse discomfort (F_{country} [1, 167] = 3.58, p < .060, η_p^2 = .021) and negative emotions (F_{country} [1, 167] = 6.68, p < .011, η_p^2 = .038). Given the aforesaid, the first hypothesis was partially supported, in the sense that there were differences depending on the cultural distance or proximity with respect to the movie, but in many cases this was in the opposite direction to what was expected (see Table 1).

Hypothesis 2 predicted an influence of the modality in which the movie is viewed on identification with the characters. It was expected that the interactive version, in contrast to the non-interactive one, would increase the level of identification with the characters. However, no statistically significant differences were observed in the identification with the characters depending on the viewing modality (F_{modality} [1, 167] = 1.15, p = .283). Therefore, it was considered appropriate to reject hypothesis 2.

Hypothesis 3 predicted that there would be no effect of the viewing modality on the evaluation of the movie or enjoyment. No better evaluation of the movie or greater enjoyment was expected for the interactive version compared with the non-interactive version. In this regard, no significant differences were observed for the overall evaluation

index of the movie (F_{modality} [1, 167] = 0.12, p = .721), or for its credibility (F_{modality} [1, 167] = 1.59, p = .208), or for the evaluation of the movie as being 'good and short' (F_{modality} [1, 167] = 0.26, p = .607), or enjoyable (F_{modality} [1, 167] = 0.28, p = .592). Nevertheless, significant differences were observed in the evaluation of the movie as being comprehensible and clear (F_{modality} [1, 167] = 5.36, p < .022, η_p^2 = .031), the interactive modality being the one that was perceived as less comprehensible and more confusing. Finally, it was also observed that the participants gave a better evaluation of the equipment for viewing the movie when it was viewed interactively (F_{modality} [1, 167] = 13.47, p < .001, η_p^2 = .075). Overall, it can be stated that interactive viewing did not produce any improvement in the processes of evaluating and enjoying the movie, hence hypothesis 3 was supported by the data.

Table 1   Effects of the viewing modality and cultural proximity (country) on the reception processes of the movie

Dependent variables	Modality		Country	
	Non-interactive	*Interactive*	*Holland*	*Spain*
Identification with the protagonists	3.19 (0.73)	3.31 (0.69)	3.14 (0.77)	3.34 (0.65)
Evaluation of the movie:				
Overall evaluation	2.80 (0.82)	2.80 (0.94)	3.41 (0.82)	2.30 (0.55)
Comprehensible	3.17 (0.92)	2.88 (0.95)	3.51 (0.94)	2.63 (0.74)
Credible	3.08 (1.10)	2.94 (1.11)	2.50 (1.16)	3.44 (0.84)
Good and short	3.30 (0.81)	3.49 (0.85)	3.20 (0.94)	3.56 (0.71)
Physical sensations:				
Tension or anxiety	2.40 (0.78)	2.34 (0.77)	2.22 (0.79)	2.49 (0.73)
Diffuse discomfort	1.62 (0.67)	1.50 (0.55)	1.51 (0.60)	1.61 (0.60)
Sensation of nauseas and cold	1.38 (0.65)	1.45 (0.63)	1.55 (0.79)	1.31 (0.47)
Emotions felt:				
Positive emotions	1.99 (0.64)	1.98 (0.73)	2.05 (0.81)	1.94 (0.56)
Negative emotions	3.11 (0.77)	3.35 (0.75)	3.10 (0.84)	3.34 (0.69)
Enjoyment	2.90 (1.06)	3.15 (1.00)	2.86 (1.12)	3.16 (0.95)
Adequate equipment	3.17 (1.21)	3.74 (1.02)	3.70 (0.94)	3.24 (1.27)
N	89	87	80	96

Note: ANCOVA (means and standard deviations in parenthesis).

Hypothesis 4 predicted that the modality in which the movie is viewed will have no effect on the induction of emotions or on the perception of physical sensations. In convergent fashion with this hypothesis, it was observed that the modality did not affect the induction of positive (F_{modality} [1, 167] = 0.01, p = .905) or negative (F_{modality} [1, 167] = 1.31, p = .253) emotions. Neither did it influence the rates of physiological tension or anxiety (F_{modality} [1, 167] = 0.77, p = .380), or the sensation of nauseas or cold (F_{modality} [1, 167] = 0.34, p = .559), although it was observed that there was less diffuse discomfort among participants that viewed the movie in the interactive modality (F_{modality} [1, 167] = 4.20, p < .042, η_p^2 = .025).

To test hypothesis 5, an analysis was made of the relation between identification with the protagonists and the other reception processes considered (evaluation of the movie, induction of emotions, perception of physical sensations, and enjoyment) by means of the partial correlation coefficient (controlling for the effect of the variables sex, age, reasons for watching movies and frequency of going to the cinema). Said analysis was conducted separately for the participants from Holland and for those from Spain. In both cultural contexts, it was expected that there would be a positive relation between identification with the protagonists and the induction of emotions, the perception of physical sensations, and enjoyment. The results of the analysis are presented in Table 2. In agreement with the proposed hypothesis, identification with the protagonists of the movie was associated to greater enjoyment, more intense self-perceived physical sensations and greater induction of positive and negative emotions. It was also observed that perceiving that the equipment used to view the movie as adequate was associated to greater identification with the protagonists. Likewise, it was also observed that the perception of the equipment used to view the movie as being adequate was associated to greater enjoyment (r_{partial}[87] = .20, p < .026, Spain; r_{partial}[71] = .28, p < .006, Holland).

Table 2   Partial correlations between identification with the protagonists and the indicators of physical sensations, emotions felt and enjoyment by countries

Reception processes	Identification with the protagonists	
	Spain	*Holland*
Physical sensations:		
Tension or anxiety	.43 ***	.63 ***
Diffuse discomfort	.23 *	.37 ***
Sensation of nauseas and cold	.14 +	.19 *
Emotions felt:		
Positive emotions	.16 +	.30 **
Negative emotions	.43 ***	.61 ***
Enjoyment	.61 ***	.66 ***
Adequate equipment	.16 +	.16 +
N	90	74

Notes: Controlling for the effect of the variables sex, age, reasons for watching movies and frequency of going to the cinema.
+ p < .10, * p < .05, ** p < .01, ** p < .001

6 Discussion

The fundamental objective of this study was, after subjecting the *corpus* to two samples belonging to two different cultural environments, to test the extent to which the theoretical assumptions associated to the reception processes and interactive fiction on which they were based can be generalised. In this regard, the results confirm that, as predicted by the preceding literature, interactivity with the storyline is an element that does not in itself fundamentally alter the viewing experience. The results of the research show that the overall evaluation of an audiovisual production of these characteristics, and also the consumption experience, depend on other factors (fundamentally the content, following Soto-Sanfiel et al. (2009).

This study also confirms the close relation between identification with the characters and enjoyment and affective induction, and therefore its centrality in the explanation of the consumption of fiction (Cohen, 2001; Igartua, 2010; Igartua and Barrios, 2012).

Additionally, and in fiduciary fashion, this study also sought to obtain indications of the effects of cultural proximity on psychological reception processes, an area where there is a shortage of knowledge. In fact, the data obtained in this regard was the study's most interesting contribution. It has found evidence that receivers from different cultures selectively incorporate their experiences from viewing fiction both in their minds and in their lives in different ways, either through critical judgments of the story or through identification with the characters, as proposed by Katz and Liebes (1984).

This study has also observed the impact of interactivity (active participation) on consumption. It has confirmed that choosing the storyline of a piece of fiction only affects clarity and comprehension, but not enjoyment or more general processes such as identification with the characters. However, these results, paradoxically, raise questions that challenge current knowledge of the psychological processes associated to the conventional reception of fiction. In fact, the type of interactivity used in this study is a revealing mechanism of the patterns present in the current-day psychological processing of narratives and consumption. Of course, future studies in the field of media entertainment theories will hopefully explain why, for example, despite the interruption of lineal consumption to select the storyline, identification with the characters is not broken. There is also a need to find out how the processes of the focalisation of attention are produced and about their effect on de-localised consumption, using different devices or in no sequential form. In addition, we need to look in more depth at the characteristics of engagement, absorption and narrative transportation in the area of the new offer of interactive media. Finally, we should further the study of the effect of different levels and formats of interactivity in said specific psychological processes.

7 Conclusions

This research has obtained evidence of the effects that cultural proximity and the capacity to interact with the storyline (interactivity) have on specific psychological processes associated with the consumption of narratives, in particular enjoyment and identification with the characters. In an environment like the one we have today, characterised by the global dissemination of cultural products over networks, many of which are interactive or include non-localised forms of consumption (Castells, 1997), these findings are important for explaining how receivers from different cultures react to these offers (which make us

more equal but also differentiate us) and, likewise, to new forms of consumption (interactive and using different devices).

This study confirms that cultural proximity is a factor that can affect the processes associated to the reception of audiovisual narratives. In the hope that future studies will confirm whether the results obtained are specific to the studied populations, and, consequently, a particular reflection of their idiosyncrasies, this research presents data that leads us to claim that greater cultural proximity to movies could produce greater comprehensibility and clarity in their storylines, as well as a more positive overall evaluation of the audiovisual product. However, and paradoxically, indications were also found of the opposite, that greater cultural distance could produce more enjoyment, identification with the characters, credibility of the storyline, perception of the quality of the representation and intensity of some emotions (particularly negative ones) and physical sensations.

These results suggest that cultural proximity could activate more or less predominant modes in the consumption of fiction depending on proximity to or distance from the narrative. In the light of previous contributions, greater cultural proximity could invoke *analytical* (Vorderer, 1993), *critically-analytic distanced* (Cupchik, 2002, 2011) or *external* (Oatley, 1994, 1999) processing. These three labels refer to a detached mode of reception, in which cognition is superior to emotion. Specifically, Vorderer's label supposes that the spectator does not feel implicated with the characters and the storyline, but essentially does consider the form of presentation. Cupchik's label coincides with this in that the receivers act in a more psychologically detached fashion with respect to the action being shown, but adds that they tend to be more aware of the mediated nature of the representation, thinking of it more as a media representation, which affects the implicit suggestion of temporarily believing in the illusion. Finally, Oatley's label proposes that the subject treats the text like as work of art and generates an intellectual and rational interpretation of, for example, the formal resources used by the author. In turn, greater cultural distance could incite processing modes described as *implicated* [the receivers experience the story from within and go with the flow of the plot and characters (Vorderer, 1993)], *internal* [the receiver is immersed in the text and, from there, mentally simulates the environment, events and actions through the activation of reactions involving empathy and identification with the characters, distanced reflection and emotional memories (Oatley, 1994, 1999)], or *involved* emotional memories [users are psychologically trapped by the action being shown, tend to forget the media origin of the representation, think as if they were within the narrative and temporarily get the feeling that what they are seeing is real (Cupchik, 2002, 2011)]. Future studies should specifically test their suppositions.

Likewise, all of the above helps justify the notion that identification with the characters in this study was greater in the more distant culture. The more culturally distant receivers tend to relate with the characters, and therefore identify with them, in a more *implicated*, *internal* or *involved* manner (Cupchik, 2002, 2011; Oatley, 1994, 1999; Vorderer, 1993), while those of the more proximate culture do so in a more *analytical*, *critical- distanced* or *external* manner. Of course, future studies would do well to test these suppositions.

Another suggestive element of the results is that the more culturally proximate receivers attribute a more positive overall evaluation to the movie (as well as considering it more comprehensible and clearer) than distant ones. In line with the suggestions by Katz and Liebes (1984), familiarity with the representation would appear to be a

determinant factor in the evaluation of an audiovisual production. Remember that authors claim that the consumption of fiction is a negotiation process between the story being represented and culture, which occurs in the interaction with the individual's psychological characteristics. So, the results of this study lead us to believe that more culturally proximate or familiar narrative representations could be considered to be of greater merit, more admirable or more appreciable than more distant ones. Future studies could not only demonstrate these suppositions, but could also further the definition of different dimensions that familiarity, in these cases, could have.

In accordance with its objectives, this study, in addition to the above, observed the specific effect of interactivity on reception processes. The first results confirm that, as had been predicted by preliminary studies, the capacity to select the storyline of a piece of fiction has no affect on enjoyment of the same (Lee et al., 2010; Soto-Sanfiel et al., 2009; Vorderer et al., 2001). However, we can also add that neither does it have any effect on the overall evaluation, credibility, or perceived length of a movie. However, the results do reveal an effect of interactivity both on the comprehension and clarity with which a narrative can be perceived. In consequence, breaks in the sequentiality and consumption of a storyline are critical variables that could affect the processes involved in the reception of fiction due to their effect on the comprehension and clarity that receiver's sense.

In addition, and in coherence with the above, but unlike what was reported by Soto-Sanfiel et al. (2010) with a smaller sample belonging to a specific cultural environment, the results of this study, for this sample as a whole, sustain that interactivity generally has no effect on identification with the characters. Identification is produced, in similar proportions, in the consumption of both interactive and non-interactive products. At this point, we need to consider elements that are taken into account by the recent literature on entertainment to be important in reception processes and reflect, in the light of the present results, on the effect of interactivity on these processes.

Previous research into media entertainment has found that narrative transportation (Green et al., 2004) or narrative engagement (Busselle and Bilandzic, 2009) increase identification with the characters in a piece of fiction (and enjoyment of the same). According to these studies, when somebody is strongly implicated, absorbed and/or engaged in a narration, they also experience high identification with the characters and high enjoyment. Identification is associated with empathy (both emotional and cognitive) and with the temporary loss of self-awareness as the identity of the character is assumed (*merging*) (see also Sestir and Green, 2010). In turn, the concept of transportation is associated with three sub-processes: focalisation of attention to the narration, activation of highly vivid mental images and emotional induction. Of these sub-processes, attentional focus on the narration seems to play a key role in the receiver's satisfaction. Evidence of this is how, in order to manipulate transportation, procedures have been developed such as placing confusing expressions in a (written) text, which places the spectator in a non-implicated position (Green and Brock, 2000). However, *a priori*, it could be argued that if the receivers of interactive fiction have to "leave and then re-enter the narration" in order to choose how the story continues, this could briefly 'disengage' them from the narrative and cause them to lose their sense of being the character (remembering that high identification supposes a temporary loss of self-awareness and merging with the identity of the character). In other words, choosing the storyline:

1   interrupts the receiver's transportation (because it momentarily detains focalisation on the story in order to study the available options)

2   they also lose the sense of merging with the characters because for a few seconds, the receivers go back to 'feeling who they were' (and stop being the character).

So, an interactive mode with technical procedures like those available at the present time (that interrupt engagement) could affect identification: although choosing the storyline could cause greater implication with the story in itself, having to briefly 'leave' the 'head' of the characters to choose the storyline as receivers, has a negative effect on identification. Future work with interactive narratives should study transportation and its properties (in particular, the focalisation of attention) as processes that can be discontinuous and manipulate time or space during consumption.

The aforesaid also leads us to consider the relation between enjoyment and interactivity. The fact that, in this study, interactivity had no effect on enjoyment admits several possibilities. On the one hand, it is possible that, as has been suggested, some form of enjoyment could be produced regardless of the greater or lesser presence of such factors as narrative transportation, engagement and identification itself, although it is known that these also form an important part of the consumption of conventional fiction. In this regard, it could also be considered that the experience of consuming fiction is highly complex, as also is the very definition of enjoyment, which admits different dimensions or refers to different aspects of the situation of consumption and of the product. These results, therefore, advise future studies to discriminate between intrinsic aspects of the perception of enjoyment (subjective psychological experiences) and extrinsic ones, which are derived from the particular characteristics of the product or from the situation of consumption. These studies could perhaps help us advance with the required definition of enjoyment itself (of its dimensions and measurement), which has traditionally been considered problematic (Vorderer et al., 2004), either by establishing differences and similarities between similar constructs, even depending on the language of the work (Soto-Sanfiel et al., 2009), or specifically studying the characteristics of the response to the final evaluation of the experience (Oliver and Bartsch, 2011).

On the other hand, that this study should have found that identification with the protagonists of the movie is associated to greater enjoyment, more intense self-perceived physical sensations and greater induction of positive and negative emotions, supports previous studies of identification and speaks of the relevance of this factor in the consumption of audiovisual fiction (Busselle and Bilandzic, 2009; Igartua, 2010). However, this study makes a curious finding with regard to identification: its relation with the equipment used for consumption, i.e., considering the equipment used to view the movie to be adequate is associated to greater identification with the protagonists and greater enjoyment. In addition, this discovery is one further reason to embark on studies of the relation between the specific psychological processes of the reception of entertainment and the form of presentation, especially nowadays, in such a multiplatform media environment and where fiction is not only consumed using different devices, but also in different viewing situations. In line with the contributions made by Lombard and Dillon (1997) on the issue of the factor of the presence and size of the screen, the equipment used for consumption would seem to be a key element in determining receivers' impressions.

References

Adrián, J.A., Páez, D. and Álvarez, J. (1995) 'Art, emotion and cognition. Vygotskian and current approaches to musical induction and changes in mood, and cognitive complexization', *Psicothema*, Vol. 8, No. 1, pp.107–118.

Arndt, S. and Tykwer, T. (1998) *Lola rennt (Motion Picture)*, Independent production, Germany.

Bergfelder, T. (2005) 'National, transnational or supranational cinema? Rethinking European film studies', *Media, Culture & Society*, Vol. 27, No. 3, pp.315–331.

Busselle, R. and Bilandzic, H. (2009) 'Measuring narrative engagement', *Media Psychology*, Vol. 12, No. 4, pp.321–347.

Castells, M. (1997) 'An introduction to the information age', *City: Analysis of Urban Trends, Culture, Theory, Policy, Action*, Vol. 2, No. 7, pp.6–16.

Cohen, J. (2001) 'Defining identification: a theoretical look at the identification of audiences with media characters', *Mass Communication and Society*, Vol. 4, No. 3, pp.245–264.

Costa Jr., P.T. and McCrae, R.R. (2002) *Inventario de personalidad NEO revisado (NEO PI-R). Inventario NEO reducido de cinco factores (NEO-FFI)*, 2nd ed., Manual Profesional, TEA Ediciones, Madrid.

Cover, R. (2006) 'Audience inter/active: interactive media, narrative control and reconceiving audience history', *New Media & Society*, Vol. 8, No. 1, pp.139–158.

Cupchik, G.C. (2002) 'The evolution of psychical distance as an aesthetic concept', *Culture and Psychology*, Vol. 8, No. 2, pp.155–187.

Cupchik, G.C. (2011) 'Reactive and reflective responses to mass media', in Döveling, K., Van Scheve, C. and Konijin, E.A. (Eds.): *The Routledge Handbook of Emotions and Mass Media*, pp.332–346, Routledge, New York.

Fortin, D.R. and Dholakia, R.R. (2005) 'Interactivity and vividness effects on social presence and involvement with website-based advertisement', *Journal of Business Research*, Vol. 58, No. 3, pp.387–396.

Green, M.C. and Brock, T.C. (2000) 'The role of transportation in the persuasiveness of public narratives', *Journal of Personality and Social Psychology*, Vol. 79, No. 5, pp.701–721.

Green, M.C., Brock, T.C. and Kaufman, G.F. (2004) 'Understanding media enjoyment: the role of transportation in narrative worlds', *Communication Theory*, Vol. 14, No. 4, pp.311–327.

Hupfer, M.E. and Grey, A. (2005) 'Getting something for nothing: the impact of sample offer and user mode on banner ad response', *Journal of Interactive Advertising*, p.16 [online] http://jiad.org/article74 (accessed 18 August 2012).

Igartua, J.J. (2010) 'Identification with characters and narrative persuasion through fictional feature films', *Communications. The European Journal of Communication Research*, Vol. 35, No. 4, pp.347–373.

Igartua, J.J. and Barrios, I.M. (2012) 'Changing real-world beliefs with controversial movies. Processes and mechanisms of narrative persuasion', *Journal of Communication*, Vol. 62, No. 3, pp.514–531.

Igartua, J.J. and Barrios, I.M. (2013) 'Hedonic and eudaimonic motives for watching feature films. Validation of the Spanish version of Oliver & Raney's scale', *Communications. The European Journal of Communication Research*, Vol. 38, No. 4, pp.411–431.

Igartua, J.J. and Lozano, J.C. (2011) 'Narrative persuasion and cinematographic fiction. A cross-cultural study about the impact of the feature film 'A Day without a Mexican' on attitudes towards immigration', *International Journal of Hispanic Psychology*, Vol. 3, No. 2, pp.237–250 [online] https://www.novapublishers.com/catalog/product_info.php?products_id =22276 (accessed 3 September 2014).

Igartua, J.J. and Muñiz, C. (2008) 'Identificación con los personajes y disfrute ante largometrajes de ficción. Una investigación empírica', *Comunicación y Sociedad*, Vol. 21, No. 1, pp.25–52 [online] http://www.unav.es/fcom/communication-society/es/articulo.php?art_id=40 (accessed 3 September 2014).

Igartua, J.J. and Páez, D. (1997) 'El cine sobre la Guerra Civil Española: una investigación sobre su impacto en actitudes y creencias', *Boletín de Psicología*, December, Vol. 57, No. 4, pp.7–39.

Igartua, J.J. and Páez, D. (1998) 'Validez y fiabilidad de una escala de empatía e identificación con los personajes', *Psicothema*, Vol. 10, No. 2, pp.423–436 [online] http://www.psicothema.com/psicothema.asp?id=175 (accessed 3 September 2014).

Johnson, G.J., Bruner II, G.C. and Kumar, A. (2006) 'Interactivity and its facets revisited. Theory and empirical test', *Journal of Advertising*, Vol. 35, No. 4, pp.35–52.

Katz, E. and Liebes, T. (1984) 'Once upon a time, in Dallas', *Intermedia*, Vol. 12, No. 3, pp.28–32.

Ko, H., Cho, C.H. and Roberts, M.S. (2005) 'Internet uses and gratifications: a structural equation model of interactive advertising', *Journal of Advertising*, Vol. 34, No. 2, pp.57–70.

Larsen, S.F. and László, J. (1990) 'Cultural-historical knowledge and personal experience in appreciation of literature', *European Journal of Social Psychology*, Vol. 20, No. 5, pp.425–440.

Laurel, B. (1991) *Computer as Theater*, Addison-Wesley, Massachusetts.

Lee, M.S., Heeter, C. and LaRose, R. (2010) 'A modern Cinderella story: a comparison of viewer responses to interactive vs linear narrative in solitary and co-viewing settings', *New Media & Society*, Vol. 12, No. 5, pp.779–795.

Liu, Y. and Shrum, L.J. (2003) 'What is interactivity and is it always such a good thing? Implications of definition, person and situation for the influence of interactivity on advertising effectiveness', *Journal of Advertising*, Vol. 31, No. 4, pp.53–64.

Lombard, M. and Ditton, T.B. (1997) 'At the heart of it all: the concept of presence', *Journal of Computer Mediated Communication*, Vol. 2, No. 2 [online] http://jcmc.indiana.edu/vol3/issue2/lombard.html (accessed 18 August 2012).

McMillan, S., Hwang, J.S. and Lee, G. (2003) 'Effects of structural and perceptual factors on attitudes toward the website', *Journal of Advertising Research*, Vol. 43, No. 4, pp.400–409.

Meadows, M.S. (2003) *Pause & Effect. The Art of Interactive Narrative*, New Riders, Indianapolis.

Moyer-Gusé, E. and Nabi, R.L. (2010) 'Explaining the persuasive effects of narrative in an entertainment television program: overcoming resistance to persuasion', *Human Communication Research*, Vol. 36, No. 1, pp.26–52.

Murray, J.H. (1997) *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, The Free Press, New York, NY.

Oatley, K. (1994) 'A taxonomy of the emotions of literary response and a theory of identification in fictional narrative', *Poetics. Journal of Empirical Research on Literature, Media and the Arts*, Vol. 23, pp.53–74.

Oatley, K. (1999) 'Meeting of minds: dialogue, sympathy and identification in reading fiction', *Poetics*, Vol. 26, pp.439–454.

Oliver, M.B. and Bartsch, A. (2011) 'Appreciation of entertainment: the importance of meaningfulness via virtue and wisdom', *Journal of Media Psychology*, Vol. 23, No. 1, pp.29–33.

Oliver, M.B. and Raney, A.A. (2011) 'Entertainment as pleasurable and meaningful: identifying hedonic and eudaimonic motivations for entertainment consumption', *Journal of Communication*, Vol. 61, No. 5, pp.984–1004.

Sestir, M. and Green, M.C. (2010) 'You are who you watch: identification and transportation effects on temporary self-concept', *Social Influence*, Vol. 5, No. 4, pp.272–288.

Sicilia, M., Ruiz, S. and Munuera, J.L. (2005) 'Effects of interactivity in a website. The moderating effect of need for cognition', *Journal of Advertising*, Vol. 34, No. 3, pp.31–45.

Soto, M.T. (2001) 'La creación y percepción de ficciones interactivas televisivas. Anuario Ininco', *Investigaciones de la Comunicación*, Vol. 13, No. 2, pp.203–231 [online] http://www.griss.org/curriculums/soto/publicaciones/soto2001.pdf (accessed 18 August 2014).

Soto-Sanfiel, M.T., Aymerich-Franch, L. and Ribes-Guárdia, F.X. (2010) 'Impacto de la interactividad en la identificación con los personajes de ficciones', *Psicothema*, Vol. 22, No. 4, pp.822–827 [online] http://www.psicothema.com/pdf/3807.pdf (accessed 18 August 2014).

Soto-Sanfiel, M.T., Aymerich-Franch, L. and Ribes-Guàrdia, F.X. (2009) 'Interactividad y contenido como factores de disfrute en las ficciones interactivas', *Revista Latina de Comunicación Social*, Vol. 64, pp.668–681 [online] http://www.revistalatinacs.org/09/art/853_UAB/RLCS_art853.pdf (accessed 18 August 2014).

Soto-Sanfiel, M.T., Aymerich-Franch, L. and Romero, E. (2014) 'Personality in interaction: how the big five relate to the reception of interactive narratives', *Communication & Society*, Vol. 27, No. 3, pp.151–186 [online] https://www.researchgate.net/profile/Maria_Soto-Sanfiel/publications (accessed 18 August 2014).

Soto-Sanfiel, M.T., Aymerich-Franch, L., Ribes-Guárdia, R. and Martínez-Fernández, J.R. (2011) 'Influence of interactivity on emotions and enjoyment during consumption of audiovisual fictions', *International Journal of Arts and Technologies*, Vol. 4, No. 1, pp.111–129 [online] http://www.inderscience.com/info/inarticle.php?artid=37774 (accessed 18 August 2014).

Tremayne, M. and Dunwoody, S. (2001) 'Interactivity, information processing and learning on the world wide web', *Science Communication*, Vol. 23, No. 2, pp.111–134.

Vorderer, P. (1993) 'Audience involvement and program loyalty', *Poetics*, Vol. 22, pp.89–98.

Vorderer, P. (2000) 'Interactive entertainment and beyond', in Zillmann, D. and Vorderer, P. (Eds.): *Media Entertainment: The Psychology of its Appeal*, pp.21–36, Lawrence Erlbaum Associates, Mahwah.

Vorderer, P., Klimmt, C. and Ritterfeld, U. (2004) 'Enjoyment: at the heart of media entertainment', *Communication Theory*, Vol. 14, No. 4, pp.388–408.

Vorderer, P., Knobloch, S. and Schramm, H. (2001) 'Does entertainment suffer from interactivity? The impact of watching an interactive TV movie on viewers' experience of entertainment', *Media Psychology*, Vol. 3, No. 4, pp.43–363.

Wise, K. and Reeves, B. (2007) 'The effect of user control on the cognitive and emotional processing of pictures', *Media Psychology*, Vol. 9, No. 3, pp.549–566.