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Dubbing versus subtitling yet again? An empirical study on user comprehension and preferences in Spain

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Abstract

The dubbing versus subtitling debate has been a recurrent topic in the audiovisual

translation literature, but empirical research into the reception of both modes is still

lacking. This article presents the results of an experiment that aimed to investigate to

what extent comprehension, memory, and enjoyment of a film differ in a dubbed and a

subtitled version in a country that traditionally uses dubbing, like Spain. Fifty-one

young Spanish adults participated in the study, which measured general comprehension,

dialogue recognition, face-name association and visual scene recognition, as well as

evaluative measures including film appreciation, self-reported effort related to film

viewing, and metacognitive judgments of memory.

Keywords: audiovisual translation, dubbing, subtitling, reception

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Dubbing versus subtitling yet again? An empirical study into user comprehension and preferences in Spain

A traditional discussion in the audiovisual translation literature has been the dubbing versus subtitling debate. Arguments for and against each of these audiovisual transfer modes have been put forward, in many instances without empirical data to support them (e.g. Díaz Cintas 1999; Gottlieb 1994; Koolstra et al. 2002). Beyond the academic arena, many voices have often criticised dubbing as a monster that destroys the artistic quality of the original film (see the famous article by Borges published in 1945 in the Argentinian magazine *Sur*), but the same has also been done for subtitling (see Marleau 1982).

Similarly, the audiovisual translation landscape has traditionally been divided into "dubbing countries" and "subtitling countries", often focusing exclusively on Western Europe and overlooking other audiovisual transfer modes such as voice-over. However, as previously acknowledged in a report by MCG (2007, 6) on dubbing and subtitling needs and practices in thirty-one European countries, the situation is far more complex than the dichotomy "dubbing countries" versus "subtitling countries" suggests. As Chaume (2012, 7) puts it, "the AVT landscape is not longer black and white." As far as fictional genres are concerned, most European countries use subtitling in cinemas, even where dubbing is the traditionally preferred mode (except for Spain and Italy, which seem to resist this trend). On television, dubbing is the preferred option in ten countries, including Spain, and voice-over is used in four. The rest use subtitling, except for Luxembourg and Malta where foreign audiovisual products are broadcast in their original version.

With regard to Spain, the focus of our research, dubbing has traditionally been the dominant practice (MCG 2011) but this trend may be changing. In 2009, 53% of European box-office release films were distributed only in their dubbed version and 29% both dubbed and subtitled. As for American films, the percentage of dubbed versions was even higher. Recent figures (MECD 2013) indicate that of the 364 foreign films released in Spain in 2011, 112 (30.76%) have been distributed in dubbed versions, 58 (15.94%) in subtitled versions, and 194 (53.30%) in both modalities, showing a percentual dominance of subtitling. However, no data were found on how many cinemas project either modality or the number of viewers. On the other hand, digital broadcasting and new technological possibilities give viewers the chance to choose between original versions, subtitled versions or dubbed versions, be they on TV, on DVD or on the Internet. In fact, as Chaume (2012, 6) points out, the so-called dubbing countries "also watch a significant amount of subtitled cinema" (see also Perego et al. forthcoming).

Regarding preferences, few surveys exist (Vöge 1977; OTX 2010). In the Special Eurobarometer 243, published in 2006, European citizens were asked about their level of agreement with the following statement: "I prefer to watch foreign films and programmes with subtitles, rather than dubbed." 56% tended to agree, whilst 37% tended to disagree and 6% did not reply. When looking at the Spanish data, the percentage of people who tend to agree drops to 27%, one of the lowest percentages next to citizens from France (31%), Czech Republic (21%), Austria (20%), Germany (19%) and Hungary (15%). Tradition seems to influence preferences, but it is not the only factor: according to the European Survey on Language Competences, a correlation exists between age and number of languages spoken. As indicated in the report, "the younger the individuals (range 12-18 and 18-25) and the more languages mastered, the

more pronounced is the preference for subtitling as opposed to dubbing. In the Spanish population aged 12-18 positive attitudes towards original version with subtitles are far greater than among other older groups" (MECD 2012, 31). In addition, the profile of viewers can determine their preferences: a survey carried out in the UK (Mayfair, Hull, Manchester) on 229 cinema-goers shows that dubbing attracted more mainstream easygoing viewers while subtitling appeals more selective art-house film audiences (OTX 2010).

Our approach towards this long-standing debate, in line with Díaz-Cintas' views (1999), is that it is not a matter of discussing whether dubbing is better than subtitling, or vice-versa, but of offering audiences the choice. From a research perspective, however, what is still missing is a thorough analysis of the cognitive and evaluative effects of each audiovisual transfer mode on different audiences – although steps in this direction are being taken (Perego et al. 2015; forthcoming). In other words, the key question that still needs to be further researched is: are there differences in terms of reception when watching a subtitled or a dubbed audiovisual content in a given country? This paper aims to give an answer focusing specifically on the reception of audiovisual products dubbed and subtitled into Spanish in Spain. To do so, an experiment has been carried out in Spain, a dubbing country, replicating part of a previous study developed by Perego et al. (2015) in Italy.

The article begins with some thoughts on the long-standing debate on dubbing versus subtitling, and the need for empirical research. Section 3 describes the methodological aspects of the experiment; section 4 presents and discusses the results obtained in Spain, and future research directions are suggested in the last section.

1. Dubbing versus subtitling again?

Many authors have discussed the advantages and disadvantages of dubbing and subtitling, with opposing views (see, for instance, Cary 1960; Caillé 1960, 1965; Danan 1991; Kilborn 1989, 1993; Marleau 1982; Myers 1973; Noël 1970; Reid 1978; Vöge 1977). But it is Díaz-Cintas (2003, chapter 2), and also Koolstra et al. (2002), who provide a full summary of the main arguments for and against these modalities. Cost is one of the primary differences: dubbing is more expensive because the working process is longer and so it is generally only considered if it generates financial benefits.

Secondly, subtitling respects the original voices of the characters, while dubbing respects the original image. A third aspect refers to the usefulness of subtitling for language learning (Van de Poel and d'Ydewalle 2001; Van Lommel et al. 2006; Incalcaterra et al. 2011; Ghia 2012) and for deaf and hard-of-hearing audiences (Matamala and Orero 2012), in contrast with the usefulness of dubbing for people with poor reading skills, for children and for the blind and visually impaired.

Regarding content, dubbing allows for the inclusion of overlapping dialogue and it also permits a greater manipulation (Ávila 1997). Conversely, in subtitled products content has to be summarised. In any case, both modalities are constrained by synchrony limitations: lip synch, kinetic synch and isochrony in dubbing (Matamala 2010), and space-time constraints in subtitling (Díaz Cintas and Remael 2007).

Differences can also be found in reception: while dubbing audiences can concentrate their attention on the image and understand the dialogues even if they are not watching the film, subtitles split the audience's attention, and reading the subtitles is necessary to understand the original dialogues. Due to this variety of linguistic codes, subtitling has been considered less effective in terms of content understanding and

memory performance (Gottlieb 1994; Grillo and Kawin 1981; Koolstra, Peeters, Spinhof 2002; Mailhac 2000; Marleau 1982; Mera 1998). However, this view is not supported by other authors, who demonstrate that reading subtitles is effective and semiautomatic (d'Ydewalle and De Bruycker, 2007; d'Ydewalle and Gielen, 1992; d'Ydewalle et al 1991, d'Ydewalle, Van Rensbergen and Pollet 1987).

Finally, dubbing is also supposed to keep the cinematographic illusion by maintaining the orality of the original, and making it a more pleasant experience. In fact, comprehension is not the only issue put forward in the literature but also enjoyment and users' preferences, which are often explained by historical, economical and educational reasons. In certain countries dubbing was promoted during dictatorial regimes keen to strengthen the main national language. Literacy also played a key role in the selection of transfer modes, especially in countries were audiences were not sufficiently educated to read subtitles. And, finally, there is also a question of familiarity and habit (Luyken et al. 1991, 112; Díaz-Cintas 2003, 51), which Nootens (1986, 9, in Duarte Silva de Andrade Xavier 2009, 19) summarises in the following statement: "the discussion about which deserves preference, dubbing or subtitling, is a waste of time – viewers prefer the system they are used to." As expressed by Kilborn (1989, 430), the "attitudes of national audiences to subtitling and dubbing are also determined by which mode has become dominant in the country in question [...] and are also influenced by the attitudes to foreign languages and cultures which dominate a particular culture."

The same arguments are to be found in papers by Spanish researchers (Chaume 2004, 52-60). Leboreiro and Poza (2001, 315) state that subtitling is the only way to keep the original dialogues and soundtrack unaltered, while Martín (1994) opposes this view. Zaro (2000), adopting a sociological approach to the topic, maps the usage of dubbing and subtitling and considers that the film type, the intended audience and the

environment where it will be projected determine the transfer mode: popular films for wide audiences will be dubbed and released in big cinemas; popular films with artistic quality will be dubbed and subtitled, and released both in big cinemas and art houses, and "auteur" films will only be subtitled and released in festivals or art houses. Zaro also comments in more depth on Bordieu's concept of *habitus* and its relationship with the cultural and symbolic capital, and concludes the main *habitus* in Spain favours dubbing and that only a "pedagogical action", again using Bourdieu's terminology, will be able to modify it. Chaume agrees that the popularity of dubbing among the Spanish population is so high that it will be very difficult for subtitling to reach the same levels in the short term (Chaume 2004, 52), although he also acknowledges that the discussion between dubbing and subtitling is a "false debate" and that both modalities can coexist (Chaume 2004, 60). Izard (2001, 208), conversely, in a paper with a historical approach, thinks that we are going towards a situation in which dubbing and subtitling will be found in similar percentages and audiences will be able to choose how to watch films.

2. Beyond the "eternal dilemma": audience reception studies

Despite endless discussions of the pros and cons of dubbing and subtitling, and substantial research in which both modalities are compared (see, for instance, Martínez Sierra 2009), few studies contrast the effect of these two modalities on audiences, either in terms of understanding or enjoyment. Koolstra et al. (2002) summarise three studies in which the processing of dubbed and subtitled content was compared: dubbing works better for children (age 7-11 and grade 2) (Feilitzen et al. 1979; Peeters et al. 1988) but it is as effective as dubbing in older adults (Mangnus et al. 1994). This was confirmed

by Koolstra et al. (2002), who also observed no significant differences in terms of affective reaction. Wissmath and Weibel (2012) stated that no significant effect is observed on enjoyment, although dubbing implies a higher level of presence, transportation and flow.

In a pioneering study in Spain, Fuentes (2000; 2003) investigated the reception of audiovisual humour by a group of Spanish-speaking participants in both dubbed and subtitled versions of the film *Duck Soup* by the Marx Brothers, as compared to the reception of the same excerpt in its original version by a group of English native speakers. The researcher observed the viewers' reactions, asked them to complete a questionnaire and interviewed them. Results show that dubbing is more suitable for understanding humour because in the subtitling group "humorous effect will not be triggered unless viewers are sufficiently familiar with the English language to distinguish an Italian accent or defective English as a source of humour" (Fuentes 2003, 301).

Thorough and updated empirical research contrasting dubbing versus subtitling is seen in Perego et al. (2015). In their studies, the authors aim at assessing the cognitive and evaluative effects of viewing a dubbed film versus a subtitled film in both younger and older adults living in Italy. Results show that younger adults achieve an equal general understanding of the film content and visual scene recognition regardless of the transfer mode, although subtitling is more effective when some lexical aspects of performance are involved. Furthermore, there are no differences between dubbing and subtitling in terms of enjoyment. Regarding older adults (65+), results show that, despite the fact that their performance declines in both audiovisual transfer modes,

differences between groups are not significant in either the dubbed or the subtitled version.

Existing empirical literature offers interesting results on AVT reception, but what is still missing in our field are studies replicating research in order to understand to what extent previous research results are generalizable or applicable in other settings. Replication is considered a fundamental element of science, especially when human behaviour is involved (Coolican 2009, 13). Indeed, concerning the reception of dubbing or subtitling, results could be confirmed or disconfirmed depending on the audience's individual differences (e.g. age, education, motivation, etc.), preferences and viewing habits (see Perego et al. forthcoming).

To exploit the power of replication, we decided to reproduce part of the investigation conducted in Italy (Perego et al. 2015) in Spain. Our aim was to investigate to what extent comprehension, memory, and enjoyment of a film differ in a dubbed and a subtitled version in a traditional dubbing country like Spain. Although one could expect a higher performance in dubbing, because this is the traditional audiovisual transfer mode in Spain, the presence of subtitling is increasing, and younger generations are less reluctant to subtitling. Moreover, previous research in another traditional dubbing country such as Italy did not find any significant differences in most aspects. Therefore, in line with the results obtained by Perego et al. for Italy (2015), our hypotheses were that:

- General comprehension of film content would be achieved equally in both dubbing and subtitling;
- 2. Visual scene recognition would be achieved equally in both dubbing and subtitling;

- 3. No significant differences between dubbing and subtitling would be found as far as enjoyment, expressed in evaluative measures, is concerned;
- 4. Lexical aspects of the performance (that is, dialogue recognition and face-name association) would be better for subtitling, as the written nature of the subtitles would reinforce its recognition.

3. Methodological aspects

This section describes the methodological approach taken, which replicates a previous experiment by Perego et al. (2010; 2015) in a different country, i.e., Spain. The same materials and procedures have been used although the questionnaires were translated and adapted to fit the new context and the new dubbed and subtitled versions of the film.

Participants

Fifty-one undergraduates and postgraduates (36 females and 15 males, age range 20-30 years, M = 23.16, SD = 2.39) from a Spanish University took part in the experiment, following ethical procedures approved by the university's ethics committee. They were all Spanish native speakers who reported being habitual viewers of dubbed and subtitled films. In particular, 82.4% of participants stated that they watch dubbed films from *fairly often* to *always* and 76.4% reported the same for subtitled films. No participant had any knowledge of the original language of the film excerpt (Lebanese Arabic) used in the experiment. It is worth highlighting that, although being citizens of a traditional dubbing country, all participants reported using both audiovisual transfer modes, which

is in line with previous surveys on viewing habits in younger generations (see MECD 2012).

Experiment design

Two types of audiovisual transfer modes (dubbing and subtitling) applied to the same video content were presented to participants randomly assigned to two experimental conditions (Sub: n = 26, Dub: n = 25), according to a two-group between-subjects design.

The main dependent variables were measures of cognitive performance and evaluative measures. Cognitive performance was assessed through measures of general comprehension, dialogue recognition, face-name association and visual scene recognition. Evaluative measures included film appreciation, self-reported effort related to the film vision, and metacognitive judgments of memory. For more details, see Perego et al. (2015).

Video

A 26-minute video excerpt taken from the Lebanese comedy *Caramel* (N. Labaki, 2007) was used in the experiment. It was shown either in its dubbed or in its subtitled version in Spanish, according to the experimental design. The video was medium-paced and narratively conventional. The dubbed and the subtitled versions were the commercialized ones made by Spanish professionals according to Spanish standards.

Questionnaires

The questionnaire booklet included the following material: a *Subtitle-reading check* distributed to all participants exposed to the subtitled excerpt to verify whether they actually paid attention to the subtitles (5 items); *a Questionnaire on dubbing and on subtitling* to appraise viewing habits and appreciation of either audiovisual translation mode (5 items).

Cognitive measures¹

General comprehension questionnaire, designed to evaluate whether participants understood the main conceptual aspects of the film (20 multiple choice items).

Dialogue recognition questionnaire, to evaluate the ability to recognize specific words or short phrases presented in the film (20 multiple choice items).

Face-name association test, in which participants were shown 8 freeze-frames of the film characters and were asked to select the name of each among 8 names.

Visual scene recognition test, in which sixty freeze-frames were randomly presented in a questionnaire and participants had to decide whether each of them had been shown in the video or not. Only half of the frames had been shown.

¹ The performance score for all the cognitive measures was the number of correct

responses. The general comprehension and dialogue recognition questionnaires, the

face-name association and visual scene recognition tests included items covering the

whole film excerpt.

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Evaluative measures

Evaluative questionnaire to assess the degree of film appreciation (5 items) and self-reported effort during film viewing (3 items). Metacognitive judgments of memory and comprehension (3 items), referred to general comprehension, dialogue recognition, and visual scene recognition, were also collected.

Procedure

Separate viewing sessions were set up for the subtitling and dubbing groups.

Participants accommodated in a special room and were given instructions and a general introduction. No mention of the film language or translation method was made. After viewing the video, participants were given a booklet containing the questionnaires and they were asked to fill them out in this order: (1) evaluative questionnaire; (2) facename association test; (3) general comprehension; (4) visual scene recognition; (5) dialogue recognition; (6) subtitle-reading checks; (7) questionnaire on dubbing and subtitling. Filling in the questionnaires was a self-paced task and it took approximately 60 minutes (for more details about procedure and materials see Perego et al. 2010; 2015).

4. Results and discussion

Subtitle-reading checks showed that 92% percent of the sample in the subtitling group correctly remembered the alignment of subtitles and 73% of the sample correctly remembered their colour. The majority of participants (88.5%) reported having used

subtitles *often* or *always* to help their understanding of the film. As for the difficulty of reading subtitles, 99.9% of the group provided judgments ranging from *neither easy nor difficult* to *very easy*. Finally, 92.3% of the group stated that subtitles remained on the screen for at least a *fair amount of time*. These findings indicate that participants who read the subtitles did so with apparent ease and seemed to rely on them to understand the film.

Concerning the questionnaire on dubbing and subtitling, no differences were observed between groups on a general enquiry on how annoying watching a film in a foreign language is (Sub: M = 5.65 SD = 1.20; Dub: M = 5.32 SD = 1.31; t(49) = 0.95, p = .34), in how groups considered subtitles helpful for visual scene recognition (Sub: M = 5.04 SD = 1.56; Dub: M = 4.28 SD = 1.79; t(49) = 1.61, p = .11), and in how often participants see subtitled films (Sub: M = 4.77 SD = 1.42; Dub: M = 5.00 SD = 1.41; t(49)= .58, p = .56) or dubbed films (Sub: M = 4.50 SD = 1.56; Dub: M = 4.56 SD = 1.66; t(49)= .13, p = .90). Compared to the dubbing group, the subtitling group considered the subtitles as more helpful for film understanding (Sub: M = 6.62 SD =0.50; Dub: M = 5.40 SD = 1.50; t(49) = 3.92, p < .001). This is in line with earlier results (e.g. Perego et al. 2015) and shows that, although participants did not differ in their viewing habits, the subtitling group is more aware of the role of subtitles in film understanding. This could be understood as an indication that exposure to this audiovisual transfer mode increases awareness of its usefulness. These figures also demonstrate that, although traditionally considered a dubbing country, many people in Spain consume subtitled products and are more and more familiarized with them (Chaume 2012; MECD 2013). It must be stressed that most participants were young undergraduates or MA language students – a profile that, according to previous research (see MECD 2012 mentioned above), favours subtitling. Our results seem to confirm the

strong inclination of language students towards subtitling, i.e. an AVT mode traditionally associated to general openness and curiosity for different languages and cultures. It remains to be assessed whether the same tendency would be found with a different group of students, or with older viewers with a heterogeneous background and a stronger inclination for dubbing.

As for the cognitive measures, data analysis was carried out on summative performance scores for each cognitive test: general comprehension, dialogue recognition, face-name association, and visual scene recognition.

Table 1. Descriptive statistics for the dependent variables as a function of translation methods

	DUB		SUB	
	M	(SD)	M	(SD)
Cognitive measures				
General comprehension	74.00	(8.04)	72.88	(6.66)
Dialogue recognition	80.80	(10.38)	80.58	(10.52)
Face-name association	40.00	(18.40)	46.63	(29.27)
Visual scene recognition	80.33	(5.65)	81.03	(4.47)
Evaluative measures				
Film appreciation	15.32	(4.27)	17.96	(4.84)
Self-reported effort	14.36	(1.63)	13.62	(1.58)
Judgments of memory	10.88	(2.17)	10.31	(1.67)

Note: Ranges of scores for cognitive measures were expressed in percentage of correctness. Ranges of scores for evaluative measures were: 0-30 for film appreciation and 0-18 for self-reported effort and judgments of memory.

As shown in Table 1, no significant differences resulted between groups in any of the cognitive measures (general comprehension: t(49)= .54, p = .59; dialogue recognition: t(49)= .08, p = .94; face-name association: t(49)= .97, p = .34; visual scene recognition: t(49)= .49, p = .62). This partly proves some of our hypotheses ("General comprehension of film content would be achieved equally in both dubbing and subtitling" and "Visual scene recognition would be achieved equally in both dubbing and subtitling"), but it rejects the fourth hypothesis: "Lexical aspects of the performance (that is, dialogue recognition and face-name association) would be better for subtitling, as the written nature of the subtitles would reinforce its recognition".

Our results do not follow the trend found in previous research in Italy, where measures linked to lexical aspects of the performance (i.e. dialogue recognition and face-name association) were better for the subtitled condition. Departing from this first Italian experiment, it was expected that having seen the dialogues and the name of Lebanese characters in written form would imply a higher recall, especially taking into account they are not familiar names for most Spanish audiences, but this was not the case in our experiment. The reasons behind these differences require further research, but a possible explanation could be that the film was not narratively complex, making the expected beneficial effects of subtitles invisible. It may also be that Spain is moving towards a wider presence and acceptance of subtitling, at least in younger generations such as those participating in our experiment. Participants were highly motivated

volunteers, generally interested in languages, a profile that may have impacted on the results. Additionally, the fact that subtitling may be a less frequent activity for viewers in Italy may have increased its impact in terms of dialogue recognition and face-name association in preceding experiments. It would be interesting to investigate whether Italians pay more attention to the subtitles compared to Spaniards, an aspect that could be researched, for instance, via eye-tracking. And opening the lens a bit wider, it would be interesting to research why Italy is apparently less open to subtitles than Spain taking into account that both countries have a similar history and strong dubbing traditions and schools (Danan 1991).

Linking our results with claims put forward in the subtitling versus dubbing research (see section 1), one can observe that some of the statements against subtitling do not stand. If subtitling were more demanding than dubbing (Koolstra et al. 2002; Marleau 1982), a negative effect on comprehension would be expected for this transfer mode. Similarly, if dubbing allowed audiences to concentrate more on the image (Díaz-Cintas 2003), a positive effect on visual scene recognition for this transfer mode would be expected. However, performance is similar for both cognitive measures under both conditions. It must be highlighted, however, that the video excerpt chosen was medium-paced and narratively conventional. It remains to be seen whether the same effect would be observed when participants are confronted with more complex excerpts or with full film productions. One could hypothesize that longer and more narratively complex films would imply a higher cognitive effort and could impact negatively on subtitling.

Regarding evaluative measures, data were analyzed by using three main summative indices: film appreciation, self-reported effort during film vision, and judgments of memory, as in Perego et al. (2015). As evident in Table 1, the subtitling group reported more film appreciation (t(49)=2.07, p=.04) than the dubbing group.

Results did not show significant differences between the two groups on self-reported effort (t(49)= 1.66, p = .10), and judgments of memory (t(49)= 1.06, p = .30). Results partially validate our hypothesis ("No significant differences between dubbing and subtitling would be found as far as enjoyment, expressed in evaluative measures, is concerned") because, although no differences are to be found in terms of self-reported effort and judgments of memory, our participants showed a greater film appreciation in the subtitling group. Again, the participants' profile (young university students, mostly interested in languages) may have influenced the results. Further research on different Spanish viewers, with different ages and educational backgrounds, could help us map the situation in more detail and confirm or reject previous research results.

5. Conclusions and future research

Spain has traditionally been considered a dubbing country (Ballester Casado 1998; Chaume 2012; Gil Ariza 2004; Luyken et al. 1991). With this monolithic approach, one would expect dubbed products to imply better comprehension and especially greater enjoyment than subtitled products. This idea would be further supported by claims stating that subtitling is more cognitively demanding (e.g. Gottlieb 1994; Grillo and Kawin 1981; Koolstra, Peeters, Spinhof 2002; Mailhac 2000; Marleau 1982; Mera 1998). However, the results of our study on the cognitive and evaluative reception of subtitling versus dubbing in Spain are partly in line with previous literature (Perego et al. 2015; Wissmath at al. 2009), and show no significant differences in a sample of young Spanish-speaking adults: the dubbed and subtitled excerpts under analysis received similar values in terms of general comprehension, visual scene recognition, self-report

effort, and judgements of memory. Even in aspects in which a positive effect of reading the subtitles was expected (face-name association, dialogue recognition), following the results of previous research in Italy, no difference was observed. This may be explained by the limited complexity of the audiovisual input, by the increasing presence of subtitles in Spain or by the participants' profile, all young volunteers mostly studying language-related degrees. The only difference between the dubbing and the subtitling group in our experiment was that subtitling was considered to allow for greater film appreciation than dubbing. This leads us to consider how an increasing contact with subtitles, as was the case of the participants in our study, may enhance the viewers' awareness of the usefulness of subtitles.

This study has provided some insights into current viewing habits among younger adults in Spain, which seem to have evolved rapidly in recent years: in our experiment, participants did not show differences in the reception of a subtitled or a dubbed excerpt, and were in fact slightly more in favour of subtitles in order to fully appreciate a film. Taking into account the fact that subtitling is less expensive, as mentioned in section 1, this could be exploited to offer more translated products to the audience, which would also enhance language learning and favour deaf and hard-of-hearing audiences.

New ways of delivering and consuming audiovisual content in our globalised world, mainly through the Internet, are opening new channels in which the dominant mode is no longer dubbing. Accessing online series with subtitles, often produced by fans (fansubbing), may be a more frequent action than going to a cinema to watch a dubbed film or turning on the television to watch a dubbed movie being broadcast. Both digital television and DVDs allow viewers to select between professional dubbing and professional subtitling. Even in areas where dubbing is still predominant, as in the

cinema, new technological possibilities such as apps on portable devices (for instance, MovieReading) may open the door to wider choices. This changing scenario, in which subtitles are more pervasive and accessible, may imply that some users receive more subtitled input than dubbed content.

But the other side of the coin is that this may only be true for a smaller section of the population, especially younger adults with higher education levels (see MECD 2012). It remains to be seen how older adults consume audiovisual content and deal with the technological possibilities of digital television. More research on viewing habits of different sociological profiles and more research on the impact of both transfer on users with different educational backgrounds and ages would undoubtedly shed more light on a fast-changing situation. At the beginning of the article we mentioned that, according to Kilborn (1989, 430), "attitudes of national audiences to subtitling and dubbing are also determined by which mode has become dominant in the country in question." Could it be that national attitudes no longer exist? When a choice of transfer modes is offered (via digital television but also in DVDs), what factors influence the selection of one over the other? Some 50 years ago all viewers had no other choice than to watch a single television channel, but nowadays audiences have a wide array of options. Could it be that individual users construct their viewing habits based on the community surrounding them and its cultural attitudes? Many unanswered questions that merit further research remain.

Despite the new insights offered by our research, there are some limitations that open the door to new tests. Experiments with a higher number of participants in different age and educational ranges, to see whether differences are to be found in other sectors of the populations, could be carried out. Longer audiovisual content from different genres and with a higher complexity should also be researched to see if results

are confirmed or refuted. Experiments in different environments (TV screen, computer screen, cinema screen, tablet, mobile phone) could be developed to test the impact of different platforms on the reception of both subtitling and dubbing. And, finally, experiments could be replicated in various countries, both monolingual and multilingual, with different audiovisual translation traditions (as in Perego et al., forthcoming). Knowing the impact of each transfer mode on different audiences would provide new insights that could ultimately influence audiovisual content provision and the choices of stakeholders. If subtitling proved to be welcome by audiences and as effective as dubbing in dubbing countries, it may well be that distributors could consider circulating more material in both versions. Similarly, if dubbing (or voice-over) proved to be welcome by audiences in subtitling countries, both versions could be circulated, with a positive impact on audiences such as the blind and visually impaired, who cannot read the subtitles and mainly rely on audio descriptions with audio subtitles, a modality that shares many features with voice-over (Franco et al 2010, 50) and sometimes even with dubbing (Remael 2012). More research into user needs and preferences would allow us to provide tailor-made translations beyond old standards and beliefs.

All in all, as Díaz-Cintas (1999, 38) suggested more than 15 years ago, the "Dubbing or subtitling" debate should be settled by changing the conjunction and rephrasing it as "Dubbing and subtitling: end of the dilemma". We agree with the idea behind his proposal, which is that the audience should be empowered and offered as many options as possible to choose from, especially given the various advantages the each AVT mode offers to a given audience. Turning on a TV/computer screen or going to the cinema and selecting between the original version, dubbed (or voiced-over) version and subtitled version would allow users to knowingly select the content that is most suitable for their needs.

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