

International Film and Audio-Visual Translation

Intercultural Experience as Moderator in Audience Recall and Enjoyment

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Abstract

This study examines cognitive and affective outcomes of exposure to subtitled vs. dubbed international film content. Past research has investigated issues of valid language translation, the challenges of cultural reference transference, and the benefits of subtitling for foreign language learning. Based on previous research (e.g., Wissmath, Weibel, & Groner 2009), this study queried whether recall and enjoyment outcomes differ between subtitled and dubbed versions of the same filmic content. Results show no superiority of either version in simple outcomes; however, significant interactions demonstrate the moderating impact of intercultural experience constructs. Specifically, those spectators with family foreign language experience have higher visual and dialogue recall outcomes with subtitling, and those with greater cosmopolite contact report greater enjoyment with subtitling.

Keywords: *audio-visual translation, subtitling, dubbing, cosmopolitanism, enjoyment, international film*

1. Introduction and Literature Review

With a growing repertoire of contemporary film and video delivery systems, including the Internet and streaming services such as Netflix, the ease with which films and television shows can be viewed across national, cultural, and linguistic borders has increased dramatically. Further, an emerging “global cinema” has been recognized as the intersection of “large, displaced and globalized populations of both spectators and

[film] producers,” a cinema that is increasingly multilingual and multicultural (Naficy 2010: 11). Methods of language and cultural translation are becoming more important to a broader range of peoples. What was once primarily the concern of moving image distributors and audiences in Europe and other locales with diverse language bases (and with, by the way, clearly drawn national preferences for subtitling vs. dubbing (Kilborn 1993; Szarkowska 2005; Ugochukwu 2013)) is moving inexorably into the general American audience’s field of view.

Within the broader field of intercultural communication, the study of the delivery of international cinema focuses specifically on the process of mediated global communication (Kim 2010), while intersecting with research on monolingualism and multilingualism (e.g., Bailey 2010; Khooshabeh et al. in press), cultural identity (e.g., Abrams, O’Connor, & Giles 2002), media globalization (e.g., Comor 2002), cultural/language translation (e.g., González-Iglesias & Toda 2011), and multimedia learning (e.g., Mayer 2005, 2009).

1.1. Audio-visual Translation

Audio-visual translation (AVT), the translation of the spoken word in film and video presentations, can be a complicated process (Ramière 2010). The two most common forms of AVT are subtitling and dubbing. A third option, voice-over translation, involves one or more actor voices that are recorded over the original soundtrack, which can still be heard in the background. Perhaps stemming from the use of *Benshi* performers in Japan, who narrated and acted out dialogue during the silent film era, voice-over translation is used worldwide for documentary and news content. However, its use for the translation of narrative content has been limited to Russia and Eastern Europe. For example, the traditional method of AVT in Poland is the use of a single *lektor*, a (usually male) voice-over performer who provides the translation of all characters’ dialogue, spoken over the film’s soundtrack (Sepielak & Matamala 2014; Woźniak 2012).

Research into AVT has generally been limited to the more popular options of subtitling and dubbing, covering a range of research approaches, many of them quite practical in nature. Much of the AVT research focuses on negative aspects of and problems faced with translation in general. Some of the problems that arise are due to technical aspects of creating subtitles and executing alternative language dubbing.

Subtitling not only is a translation between languages, but also between modes of communication--from the spoken word to the written word. Subtitling also presents difficulties in time and space constraints that limit how much can be said. Subtitling often excludes phrases or entire sentences and the most exact translation is frequently ignored for a more concise translation. There are parallel problems in dubbing. A

main issue with dubbing is synchronization, where the translation is matched to the movements, both lip and gestures, of the original visual work. Phrases are reworded to match the movements better, but perhaps not to better match the meaning of the original (Chuang 2006; Diaz-Cintas 1999; Koolstra, Peeters & Spinhof 2002; Nornes 1999; Ramière 2010; Stubbings 2008).

There are numerous critical translation issues relevant to both subtitling and dubbing. Word choice can be tricky, especially if there is no equivalent in the target language, resulting in the original word being left intact and causing audience confusion (Schroter 2003). Often, with comedies, especially humor that relies on puns or plays on words, the punch line is difficult to understand by the foreign audience, and the film may lose its original appeal without careful analysis during translation (Amirian & Dameneh 2014; Antonini 2005; Spanakaki 2007; Vanderschelden 2002). Other genres present similar difficulties, such as science fiction and musicals or music biographies. Translators of the original television show *Star Trek* faced many difficulties translating novel words created for the show. They even had difficulties portraying various aspects of the characters, causing them on occasion to seem racist, chauvinistic, or just plain rude (Caron 2003). Translating the film *8 Mile* presented problems that were handled in a unique fashion. For the rap sequences presented in the film, Warner Bros. had famous rappers in the target language rewrite the lyrics so the original message was understood (Taivalkoski-Shilov 2008).

Other less obvious issues have also been studied. Most of the time, off-screen dialogue is not translated. Dastjerdi and Jazini (2011) argue that by not translating this material, the target audience does not enjoy the film as much as they would if this dialogue were translated. The “realness” of the translated dialogue is called into question, in both dubbing and subtitling. Howell (2006) investigates the differences between several subtitled versions of various Japanese anime films. The differences between the English subtitles available to the Japanese market and to the American market vary drastically in dialogue. The versions available to the Japanese market use subtitles that are written in proper English that fail to convey anything other than dialogue. The English versions, done by well-known translators, use more colloquial phrasings, which help convey character relationships and backgrounds. González-Iglesias and Toda (2011) argue that dubbing better illustrates background information about characters that can only be derived from their accents. Both Matamala (2010) and Pavesi (2009) have compared broadcast translations of various films to the original script or the translated script. Pavesi goes a step further and compares them to natural, spoken language. Pavesi concludes that neither the original nor the translation perfectly imitates spoken language, but both come close. Matamala examines the various changes and losses incurred during the dubbing process. Zilberdik (2004)

argues that some bad translations should not be attributed to translation itself, but to the act of relay translation, the translating of a translation instead of the original.

Translating cultural references is often problematic. Translators may replace the original reference with one that is similar in the target language, but the similar reference does not always convey the original reference correctly. Pedersen (2007) argues that in some cases and genres (such as comedy), eliciting a similar reaction or feeling is what is most important, so replacing the reference is acceptable. But, as he points out, sometimes the target audience understands the original reference, making its replacement unnecessary. Zojer (2011) continues this point and states that this universal understanding is a result of globalization and illustrates the growing interculturality of the world.

On the other hand, in some cultures, it is deemed necessary to delete or alter foreign cultural references that will be found unacceptable in the “target” culture. For example, as noted by Amirian and Sharia'ti (2013), dubbing is the main mode of AVT used by Iranian television (IRIB), and priority is given to the target Iranian culture. IRIB’s policy is to “filter and transfer foreign assumptions and value” (7), resulting in a predominance of what 19th-century philosopher Friedrich Schleiermacher called the “domestication” of the translated content (see also Szarkowska 2005 and Venuti 1998). Multilingualism and code-switching between languages in film is also an issue (Bleichenbacher 2008). In American films, a growing amount of dialogue is in both English and Spanish. This leads to questions of how to deal with the duality of the dialogue. Almost always, Spanish is subtitled, unless another character is acting as translator (Carra 2009). This phenomenon also arises in “Bollywood” (i.e., commercial Hindi) films from India. English is frequently mixed in with Hindi (or other Indian languages) when spoken (e.g., creating what has colloquially been called “Hinglish”). This illustrates the Westernization of the Indian culture, and most often the English words are subtitled along with everything else (Si 2011).

When choosing whether to utilize subtitles or to dub, attention also is paid to the fact that not everyone can read, whether it is an illiterate adult or a child who has not yet learned, and to the attention level of the target audience. Often, TV shows such as soap operas are dubbed so that the audience can carry out other activities without being tied to the TV (Nir 1984).

1.2. Studies on Outcomes of Subtitling and Dubbing

There is a set of research that looks at the learning outcomes of subtitled films. Watching subtitled content is a unique way for foreign language learners to absorb the speech of native speakers without having to travel to another country. By being shown subtitled content in class, students develop better listening comprehension and oral

communicative abilities (Borras & Lafayette 1994). Other research concludes that showing foreign films that are subtitled to language students helps with understanding, but not vocabulary recognition (Etemadi 2012). However, d'Ydewalle and Van de Poel (1999) found "real but limited" incidental foreign-language acquisition for both children and adults exposed to either subtitling or dubbing; for children only, the dubbing produced greater acquisition than did the subtitling. A subsequent study (Van Lommel, Laenen, & d'Ydewalle 2006) concluded that exposure to subtitling can produce foreign-language vocabulary learning, but not grammatical rule learning. Hayati and Mohmedi (2010) looked at the effects that different types of subtitles have on language learners. Subtitles in the language being learned were shown to be most effective, while subtitles in the viewer's native language were shown to be more effective than no subtitles. Yekta (2010) contradicted the underlying belief that subtitles "overload" the student, providing evidence that they help with comprehension.

Eye tracking technology has been used in several studies to examine various concerns. Perego et al. (2010) looked at line segmentation in two-lined subtitles and found that the line break does not affect understanding. They concluded that there was no significant trade-off between the subtitles and the visual information, though it has been found that audiences do spend more time reading subtitles than looking at non-verbal information in a scene (Caffery 2008). d'Ydewalle et al. (1991) showed that reading subtitles is an automatic behavior that does not require additional attention. In another study, d'Ydewalle and De Bruycker (2007) looked at the difference between adult and child viewers of subtitled content. They found that both children and adults spent more time on two lined subtitles, while only children took an extended amount of time to switch their attention from the subtitles to the picture.

Lee, Roskos, and Ewoldsen (2013) conducted a study of subtitling with regard to comprehension (i.e., local and global coherence of mental models), using the second half of the classic Alfred Hitchcock film, *Rear Window* (1954). The researchers created two viewing conditions: Standard English, and French with English subtitles. They found that the standard version resulted in more elaborative inferences (corresponding to greater global coherence), while the French with subtitles version resulted in more bridging inferences (indicating greater local coherence). All told, this indicates that when the viewer's cognitive resources (i.e., attention, working memory, long-term memory, and long-term working memory) are taxed, elaborative inferences (and global coherence) suffer. Instead, "(t)heir attention and memory resources are used to make sense of the immediate events, resulting in bridging inferences that underlay locally coherent mental models but at the expense of global coherence" (435).

The findings of Lee, Roskos, and Ewoldsen (2013) are consistent with education scholarship on learning across modalities. Mayer's (2009) cognitive theory of multimedia learning distinguishes among the human processing of information presented via pictures, spoken words, and printed words. Mayer's dual-channel model specifies two channels that extend throughout sensory memory and working memory—(a) a visual/pictorial channel, and (b) an auditory/verbal channel. Pictures are processed entirely within (a), and spoken words are processed entirely within (b), while printed words are a greater “information processing challenge” (77) in that both channels come into play during processing. Images accompanied by spoken words result in a “balanced load” for the two channels, while images accompanied by printed words tends to overload the visual/pictorial channel (206). Thus, subtitling is likely to tax a receiver's limited cognitive capacity more than will dubbing.

Wissmath et al. (2009) studied the differences in effects of dubbing and subtitling on spatial presence, transportation, flow, and enjoyment. They found that both methods can lead to immersion into the story, and that there was no difference between the two in terms of enjoyment. It should be pointed out that the researchers felt that the fact that the subjects all studied in Switzerland, which has four official languages, and where audiences are accustomed to both subtitling and dubbing, limited the generalizability of the results.

The lack of a finding of difference for enjoyment deserves exploration. Despite its inclusion in many studies over decades of research, the construct of “media enjoyment” has been variously defined—as liking/positive affect, as hedonic attraction, as preference, as appreciation, and as entertainment, for example (Nabi & Krcmar 2004). In an attempt to bring definitional closure to the use of the construct, Nabi and Krcmar (2004) invoke classic psychology scholarship on attitude (Fishbein & Ajzen 1975), arguing that enjoyment is an attitude, comprised of affective, cognitive and behavioral dimensions. Subsequently, Krcmar and Renfro (2005) developed a scale for media enjoyment that tapped all three aspects, an approach that has been adopted by scholars of mass media (e.g., Wissmath et al. 2009). The construct includes aspects of cognitive involvement, positive emotions, and behavioral engagement; thus, it would be expected that filmic content that has high potential on these dimensions would be found to be more enjoyable.

1.2.1. Research Questions

Extending the work of Wissmath et al. (2009) to the American context, and taking into account the past research investigating AVT within the realm of language acquisition and of cultural learning and experience (e.g., Etemadi 2012; Yekta 2010), the following research questions are posed.

RQ1a: What differences, if any, will be found in recall for those viewing a subtitled filmic presentation vs. a dubbed filmic presentation?

RQ1b: What differences, if any, will be found in enjoyment for those viewing a subtitled filmic presentation vs. a dubbed filmic presentation?

1.3. Intercultural Experiences

Exposure to interpersonal and mediated communication from other cultures has been found in American samples to be related to such factors as greater knowledge of current events (Jeffres et al., 2014) and lower levels of ethnocentric attitudes (Ray et al., 2010). This motivates our interest in the question of whether intercultural experiences might moderate the process by which individuals respond to a film from another culture. Three types of intercultural experiences are examined:

Multilingualism, foreign film viewing, and cosmopolite contact factors. We speculate that all three may relate to a receiver's ability to manage cognitive loads related to recall outcomes (Mayer 2009) in the context of foreign film, and may relate to cognitive, affective, and behavioral engagement factors that can influence enjoyment outcomes (Nabi & Krmar 2004).

1.3.1. Multilingualism

Within a context of increasing multilingualism of film content and production (e.g., Naficy 2010), and considering the role that other-language film viewing has played in second-language or third-language learning (e.g., Lindgren & Muñoz 2013), it is basic to consider the role of spectators' proficiency in languages, as well as their exposure to languages in the family context.

1.3.2. "Foreign Film" Viewing

First, let us acknowledge the contested meaning of the term "foreign film." Nagib (2006) has pointed out the oversimplification and reductionism of a binary distinction between films originating in American "Hollywood" and those from "other" spaces. As Medin, Bennis, and Chandler (2010) caution, scholars in general should be aware of the "home-field disadvantage" that handicaps researchers who fail to recognize limitations inherent in taking one particular cultural group as a starting point. Correspondingly, Shohat and Stam (1994) have proposed dismissing the division between "us" and the "other" to forge a concept of "world cinema" based in "polycentric multiculturalism."

Nevertheless, research has found that exposure to films originating in a culture other than one's own is related to incidental second-language learning (Kuppens 2010; Lefever 2010, as cited in Lindgren & Muñoz 2013; Lindgren & Muñoz 2013) and is

predictive of knowledge and appreciation of different cultures, as well as knowledge of current events (Jeffres et al., 2014). Kern (2000) has asserted that watching “foreign” films not only broadens spectators’ views of other cultural discourses and practices, but also stimulates them, without their awareness, to absorb ideological values within the films’ content.

1.3.3. *Cosmopolite Contact*

With its roots classical philosophy, cosmopolitanism (or, sometimes, cosmopolitanism) is the degree to which one identifies as a citizen of the world, rather than as a citizen of a particular city or geographic region (Abrahamson 1965; Jeffres et al., 2014). German philosopher Immanuel Kant proposed a “cosmopolitan” world-state that would be governed by a universal moral law (Brown 1992) and in the United States, Thomas Paine saw the potential for education and trade to create a “cosmopolitan” awareness of the world, which would lead to a mutual harmony shared by nations (Walker 2000). Social scientists have stressed various dimensions of the concept in more recent times (e.g. Jeffres et al., 2004; Rogers 2002, 2004), including cosmopolite identity, interests, and appreciation, as well as cosmopolite communication contact experiences that contribute to the overall outlook, including the demography of one’s extended family, degree of cross-cultural study, and the amount and type of travel one has engaged in. This set of communication contact elements will be the aspect of cosmopolitanism applied in this study.

1.3.4. *Research Questions*

Our interest in intercultural experiences as moderating American spectators’ responses to subtitled vs. dubbed filmic content is reflected in two research questions:

RQ2a: What intercultural experience factors will moderate the impact of subtitling vs. dubbing a film presentation on recall? Specifically, it is asked whether the following factors will serve as important moderators:

- Foreign language listening proficiency
- Foreign language speaking proficiency
- Family foreign language use
- Foreign film exposure
- Cosmopolite contact

RQ2b: What intercultural experience factors will moderate the impact of subtitling vs. dubbing a film presentation on enjoyment? Specifically, it is asked whether the following factors will serve as important moderators:

- Foreign language listening proficiency
- Foreign language speaking proficiency
- Family foreign language use
- Foreign film exposure
- Cosmopolite contact

2. Methods

2.1. Experimental Design

A posttest-only experimental design with random assignment was utilized, with the manipulation consisting of subtitled vs. dubbed versions of the same moving image content. Participants ($n=168$) were students at a medium-sized middle-American urban university. Each was shown the first 35 minutes of the narrative film *Life is Beautiful* (Braschi 1997), one of the few films where both subtitled and dubbed versions are available on DVD, and the translations for which have been supervised by the film's director (i.e., Roberto Benigni). The film was also chosen because of its somewhat episodic construction, i.e., participants could be shown only one segment of the film and they could still experience a narrative arc that included a beginning, middle, and end. The first portion of the film was selected rather than the final portion, in order to avoid the more controversial subject matter of the film, i.e., the Holocaust, which is not focused on in the first portion of the film. This first section of the film is also more comedic in nature, thus providing the potential for more differences in responses to the dubbed and subtitled translations.

The study was conducted entirely online through SurveyMonkey. The protocol and measures were approved by the university's Institutional Review Board.

2.2. Measures

Participants were first presented with a series of background questions covering demographics and a series of measures aimed at assessing participants' intercultural and foreign language experiences, and then were shown the film segment. Individuals in condition one viewed the subtitled version ($n=76$); individuals in condition two viewed the dubbed version ($n=92$). After the film, participants were presented with a post-test questionnaire tapping their recall and enjoyment of the film segment.

The pre-viewing instrument included demographics: Gender, racial/ethnic identity (open-ended, which was then coded), age in years, and academic major (open-ended). The pre-viewing background questions also measured five aspects of intercultural

experience: Foreign language listening proficiency, foreign language speaking proficiency, use of a foreign language by family member(s), exposure to foreign films, and cosmopolite contact.

The section on foreign language (i.e., a language other than English) proficiency was divided into listening and speaking proficiency scales. Each scale involved five questions that were derived from the levels used by the American Council on the Teaching of Foreign Languages

(http://www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines2012_FINAL.pdf) under the supervision of a professor of World Languages with experience applying these proficiency criteria. The Cronbach's alpha reliability coefficients for the two proficiency scales were .950 for listening and .953 for speaking.

The use of a foreign language by participants' family members was tapped via a single self-report measure: "Does anyone in your immediate or extended family speak a language other than English?"

To examine the exposure each participant had to foreign films previous to this study, participants were presented with a list of the 16 highest grossing non-English language, non-U.S. films of all time (www.boxofficemojo.com). Fully 61 participants (36.3%) had not seen any of the listed foreign films prior to this study, while the most a participant saw previously was 11 of the 16. Of those who had seen any of the top foreign films, the modal number seen was one film.

Cosmopolite contact was tapped via 10 items, which were all yes/no items that were summed to produce a scale of cosmopolite contact, with a potential range of 0 to 10. This roster of items was adapted from previous research on cosmopolitaness by Jeffres et al. (2004, 2008, 2014). One point was given for an affirmative response to each of the following: The participant was born outside the U.S., at least one parent was born outside the U.S., at least one grandparent was born outside the U.S., someone in the participant's extended family was married to an individual from another country, someone in the participant's extended family was currently living in another country, the participant had lived in another country, the participant had studied a foreign language, the participant had studied abroad, the participant's family had hosted a foreign exchange student, and the participant had experienced some travel to another country. The mean and standard deviation for this scale were 3.87 and 2.69, respectively. The Cronbach's alpha reliability coefficient for this scale was .800.

In order to conduct MANOVA/ANOVA analyses, median splits were conducted on the measures of listening proficiency, speaking proficiency, foreign film exposure, and cosmopolite contact.

2.2.1. Dependent measures

Recall was measured in three different modes: Visual, dialogue, and narrative. For each mode, two open ended questions and two multiple choice questions were constructed. The decision to include visual recall was based on Caffery (2008), who found that while there was no tradeoff between the subtitles and visual information, audiences did spend more time reading subtitles than looking at the image. In the present study, the questions in the visual recall section could only be answered with information found in the image and were not explicitly discussed verbally (e.g., the love interest rips her dress in the car door, but the car door is not mentioned verbally by the characters). Dialogue recall was included based on details provided by Antonini (2005), including a focus on puns and plays on words. The answers to dialogue recall questions could only be found in dialogue (e.g., the answer to a riddle the main character presents to a friend). The inclusion of narrative recall was intended to serve as a test of more generic, non-mode-dependent recall, meaning that the answers to the questions in this section could be derived alternatively from various contextual cues, visual information, or spoken dialogue (e.g., “Where does the film take place?”). All items were coded for correct responses. Each of the three recall modes, therefore, was represented by a four-item additive inventory that could range from zero to four correct points. [1]

As inventory-type measures, the three recall scales are not wholly appropriate for internal consistency reliability testing via Cronbach’s alpha (Measurement 2001; Streiner 2003), but nevertheless the resultant coefficients met general criteria: For visual recall, the four-item inventory obtained a Cronbach’s alpha of .519 and a mean interitem correlation (MIC) of .213 (meeting the criterion of .20 to .40 recommended by Briggs and Cheek 1986). For dialogue recall, the four-item inventory obtained an alpha of .667 and an MIC of .334. And for narrative recall, the four-item inventory obtained an alpha of .625 and an MIC of .294. The means and standard deviations for the three recall inventories were as follows: Visual recall, $M = 2.87$, $sd = 1.03$; dialogue recall, $M = 2.71$, $sd = 1.31$; narrative recall, $M = 3.22$, $sd = 0.97$.

The scale used to measure enjoyment was adapted from the general media enjoyment scale presented in Krcmar and Renfro (2005). Of the original 18 items, 15 were deemed relevant for the current task and were used. Sample items include “I would have paid to watch it (in theater/rental),” “I felt good when I watched it,” and “I will seek out additional information about the video.” All were measured on a seven-point response scale, ranging from “Strongly Disagree” (1) to “Strongly Agree” (7). The 15-

item enjoyment scale obtained a Cronbach's alpha reliability coefficient of .963. The mean was 55.54 and the standard deviation was 24.84.

2.3. Description of the Sample

All 168 participants were enrolled in communication classes at a medium-sized urban university. The academic majors of the participants were as follows: Film/Digital Media, $n=26$; Other communication majors, $n=72$; other majors (e.g., business, engineering, social work), $n=67$; missing, $n=3$. The participants ranged in age from 18 to 61, with a median age of 21. Sixty-five participants (38.7%) were male, while 103 (61.3%) were female. With regard to race/ethnicity, 162 participants provided a response: 79 participants (48.8%) were self-designated White/Caucasian, 53 (32.7%) were Black/African-American, 11 (6.8%) were Arab/Middle Eastern, 9 (5.6%) were Hispanic or Latino, 6 (3.7%) were Asian, and 4 (2.5%) were some other race or ethnicity.

Twenty-five (14.9%) of the participants were born in a country other than the U.S., 43 (25.6%) had at least one parent born outside of the U.S., and 63 (37.5%) had at least one grandparent born outside of the U.S. Thirty-one participants (18.5%) had lived outside of the U.S. and 63 (37.5%) had a family member who lived abroad. Fifty-nine participants (35.1%) had a family member who was married to someone born outside of the U.S. One hundred and three participants (61.3%) stated that someone in their immediate or extended family spoke a language other than English, and 153 (91.1%) stated that they themselves had studied a foreign language at some point (most starting at the high school level ($n=84$) or some point before high school ($n=66$), while the remaining participants started in college ($n=3$)). During their academic studies, 15 (8.9%) had studied abroad and 10 (6.0%) had families that hosted a foreign exchange student. At some point in their lives, 85 (50.6%) had traveled outside the U.S.

3. Results

In order to test for the effects of condition (RQ1a and RQ1b) and the possible moderation by the five proposed intercultural experience constructs (RQ2a and RQ2b), main effects and interaction terms within an ANOVA model were examined (Baron & Kenny 1986) for the five candidate moderating factors—foreign language listening proficiency, foreign language speaking proficiency, family foreign language use, foreign film exposure, and cosmopolite contact—for each of the two dependent variables (recall and enjoyment). Due to intercorrelations among the three recall inventories (visual/dialogue recall $r = .61$; visual/narrative recall $r = .51$, dialogue/narrative recall $r = .66$; all $p < .001$), MANOVA was employed as an initial strategy before proceeding to ANOVAs for the recall indicators. The final n for cases

with full data on all three recall scales was 148; for consistency, these cases were used for all ANOVAs.

The MANOVA results were as follows: For the two-factor MANOVA testing the impact of condition and foreign language listening proficiency (low, high), neither main effects nor the interaction term were significant. Likewise, for the two-factor MANOVA testing the impact of condition and foreign language speaking proficiency (low, high), there were no significant predictors. For the two-factor MANOVA testing the impact of condition and family foreign language (no, yes), the two main effects were non-significant, while the interaction term was near-significant (Pillai's trace = .045, Wilks' lambda = .955, Hotelling's trace = .047, Roy's largest root = .047, $p = .094$). For the two-factor MANOVA testing the impact of condition and foreign film exposure (low, high), the condition main effect and the interaction term were non-significant, while the main effect for foreign film exposure was near-significant (Pillai's trace = .052, Wilks' lambda = .948, Hotelling's trace = .055, Roy's largest root = .055, $p = .061$). In the case of the two-factor MANOVA testing the impact of condition and intercultural exposure (low, high), neither the main effects nor the interaction term were significant.

Tables 1 through 3 present the ANOVAs with significant or near-significant factors deemed appropriate for interpretation via the MANOVAs. Table 1 displays a significant interaction between condition and family foreign language use (no, yes) in the prediction of visual recall. (Note that while family foreign language use showed a significant main effect, this factor had not reached significance in the MANOVA, and so will be disregarded.) Figure 1 graphs this significant interaction using estimated marginal means, showing that subtitling (vs. dubbing) produced greater visual recall for those with a family member who speaks another language, and lesser visual recall for those with no family member who speaks another language.

Table 1: *Two-Factor ANOVA Predicting Visual Recall from Condition (Dubbed/Subtitled) and Family Foreign Language Use*

	Mean	sd	n	Sum of Squares	df	Mean Square	F	Sig.	Partial eta²
Condition				0.17	1	0.17	0.17	.68	.00
Dubbed	2.78	1.04	78						
Subtitled	2.97	1.01	70						
Family Foreign Language Use				3.99	1	3.99	3.99	<.05	.03
No	2.67	1.07	55						
Yes	2.99	0.98	93						
Condition X Family Foreign Language Use Interaction				6.18	1	6.18	6.19	.01	.04
Dubbed/No FFLU	2.83	0.87	30						
Dubbed/Yes FFLU	2.75	1.14	48						
Subtitled/No FFLU	2.48	1.26	25						
Subtitled/Yes FFLU	3.24	0.71	45						
Error				143.72	144	1.00			
Corrected Total				154.56	147				.07

NOTE: The grand mean for this analysis was 2.87, with a sd of 1.03 and an n of 148.

Figure 1: *Significant Interaction Predicting Visual Recall from Condition and Family Foreign Language Use*

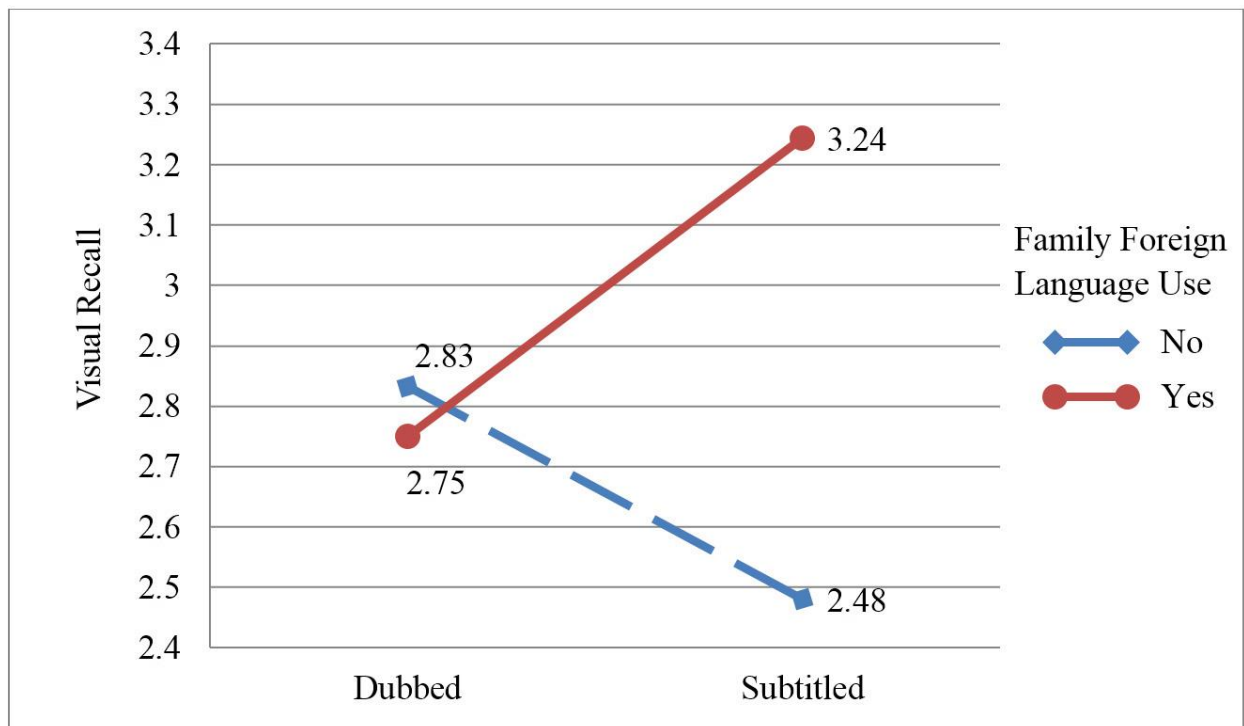


Table 2 includes a near-significant interaction between condition and family foreign language use in the prediction of dialogue recall. (Note that although family foreign language use showed a significant main effect here, this factor did not show significance in the MANOVA, and so will be disregarded.) Figure 2 shows this near-significant interaction visually using estimated marginal means, such that, as with visual recall, subtitling (vs. dubbing) produced greater dialogue recall for those with a family member who speaks another language, and lesser dialogue recall for those without such a family member.

Table 2: *Two-Factor ANOVA Predicting Dialogue Recall from Condition (Dubbed/Subtitled) and Family Foreign Language Use*

	Mean	sd	n	Sum of Squares	df	Mean Square	F	Sig.	Partial eta²
Condition				0.06	1	0.06	0.04	.85	.00
Dubbed	2.73	1.39	78						
Subtitled	2.89	1.09	70						
Family Foreign Language Use				6.78	1	6.78	4.46	.04	.03
No	2.54	1.31	55						
Yes	2.96	1.20	93						
Condition X Family Foreign Language Use Interaction				5.34	1	5.34	3.52	.06	.02
Dubbed/No FFLU	2.70	1.35	30						
Dubbed/Yes FFLU	2.75	1.42	48						
Subtitled/No FFLU	2.35	1.25	25						
Subtitled/Yes FFLU	3.19	0.87	45						
Error				218.86	144	1.52			
Corrected Total				231.10	147				.05

NOTE: The grand mean for this analysis was 2.80, with a sd of 1.25 and an n of 148.

Figure 2: Near-Significant Interaction Predicting Dialogue Recall from Condition and Family Foreign Language Use

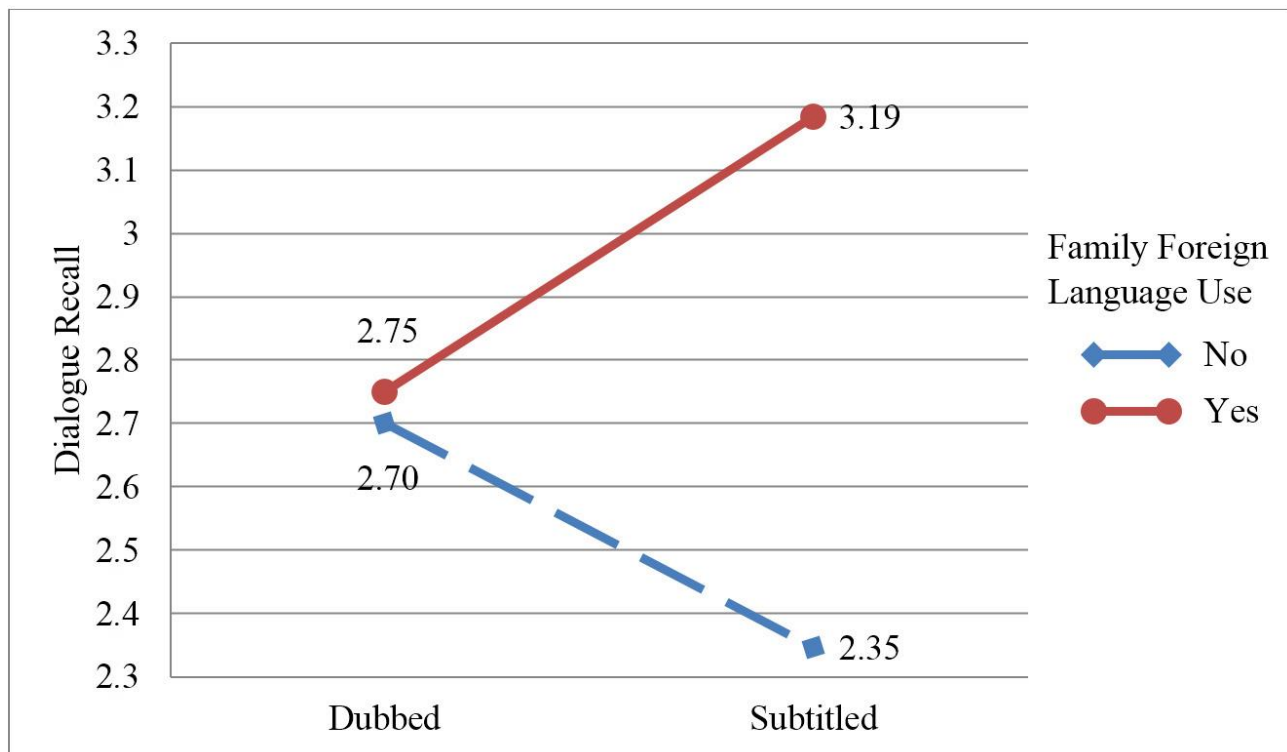


Table 3 shows a significant main effect of foreign film exposure (low, high) on visual recall, such that those with greater foreign film exposure scored higher on visual recall. While this main effect was not a focus of the study's research questions, this finding may be of interest for further investigation.

Table 3: Two-Factor ANOVA Predicting Visual Recall from Condition (Dubbed/Subtitled) and Foreign Film Exposure

	Mean	sd	n	Sum of Squares	df	Mean Square	F	Sig.	Partial eta ²
Condition				0.91	1	0.91	0.90	.35	.01
Dubbed	2.78	1.04	78						
Subtitled	2.97	1.01	70						
Foreign Film Exposure				7.45	1	7.45	7.36	.01	.05
Low	2.68	1.14	87						
High	3.15	0.77	61						
Condition X Foreign Film Exposure Interaction				0.11	1	0.11	0.11	.74	.00
Dubbed/Low FFE	2.63	1.15	49						
Dubbed/High FFE	3.03	0.78	29						
Subtitled/Low FFE	2.74	1.13	38						
Subtitled/High FFE	3.25	0.76	32						
Error				145.72	144	1.01			
Corrected Total				154.56	147				.06

NOTE: The grand mean for this analysis was 2.87, with a sd of 1.03 and an n of 148.

For the testing of the impact of condition and the five candidate moderating factors on enjoyment, five ANOVAs were conducted. A significant prediction was evident for one of the ANOVAs, as presented in Table 4. This table shows a significant interaction between condition and cosmopolite contact in the prediction of enjoyment. The significant interaction is graphed in Figure 3, showing with estimated marginal means that for those with high cosmopolite contact, subtitling received higher

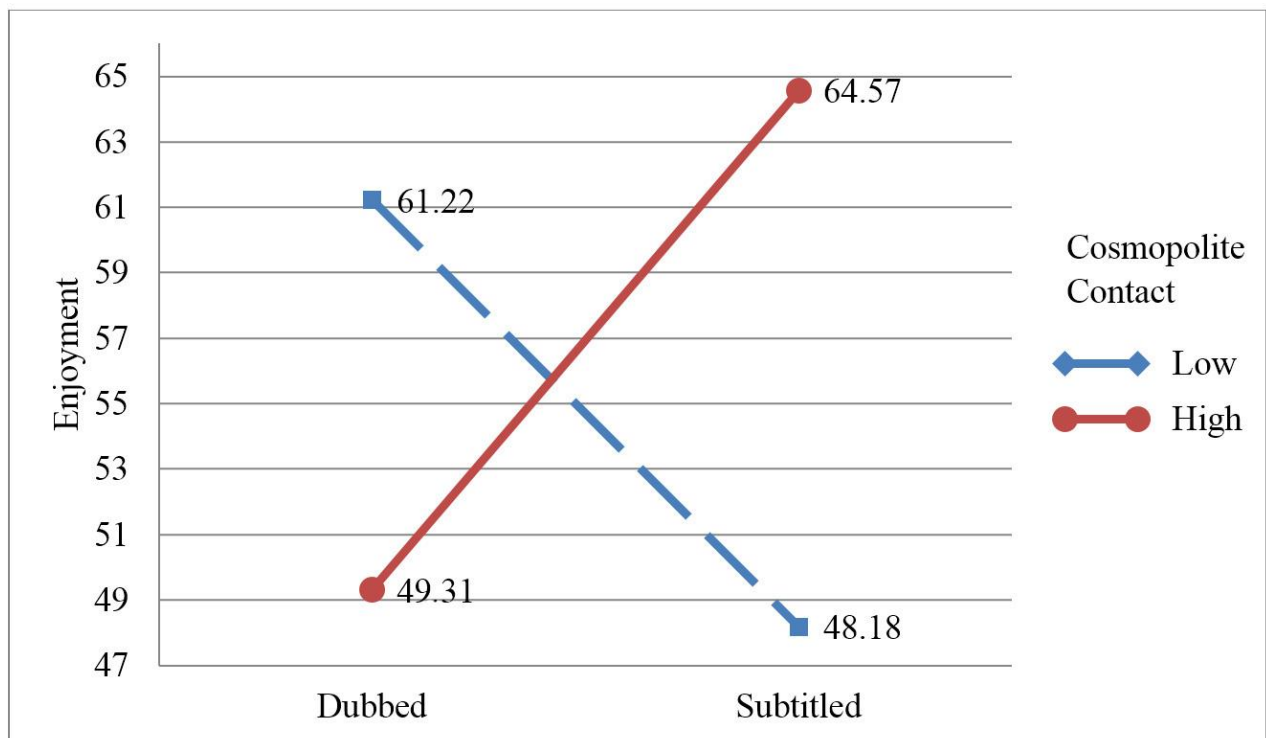
enjoyment evaluation than did dubbing, and for those with low cosmopolite contact, it was exactly the opposite—dubbing received higher enjoyment ratings than did subtitling.

Table 4: *Two-Factor ANOVA Predicting Enjoyment from Condition (Dubbed/Subtitled) and Cosmopolite Contact*

	Mean	sd	n	Sum of Squares	df	Mean Square	F	Sig.	Partial eta ²
Condition				44.70	1	44.70	0.07	.79	.00
Dubbed	55.26	26.10	78						
Subtitled	56.13	24.48	68						
Cosmopolite Contact				181.79	1	181.79	0.30	.58	.00
Low	55.05	23.03	74						
High	56.30	27.54	72						
Condition X Cosmopolite Contact Interaction				7266.26	1	7266.26	12.10	.001	.08
Dubbed/Low CC	62.22	25.57	39						
Dubbed/High CC	49.31	25.57	39						
Subtitled/Low CC	48.18	17.79	35						
Subtitled/High CC	64.56	27.85	33						
Error				85269.20	142	600.49			
Corrected Total				92621.10	145				.08

NOTE: The grand mean for this analysis was 55.67, with a sd of 25.27 and an n of 146.

Figure 3: *Significant Interaction Predicting Enjoyment from Condition and Cosmopolite Contact*



In sum, RQ1 (a and b), which asked whether subtitling and dubbing would result in different levels of recall of various types, or in different levels of enjoyment, was answered in the negative for all MANOVA and ANOVA tests. As with Wissmuth et al. (2009), this study identified no significant simple differences in responses to subtitling and dubbing.

However, several significant and near-significant interactions were found between condition (subtitled/dubbed) and candidate moderators, indicating that apparent cognitive and affective outcomes of subtitling vs. dubbing are conditional upon particular types of intercultural experience.

4. Discussion

The null findings related to RQ1 were somewhat surprising, given earlier scholarship indicating the learning potential for subtitled content (relevant to cognitive processing and recall), Mayer's (2009) perspective on multimedia learning that would predict subtitling to be superior to dubbing for cognitive/recall tasks, and research that shows preferences for subtitling vs. dubbing varying systematically by country (relevant to enjoyment; Kilborn 1993). Clearly, the cognitive and affective responses to subtitling

and dubbing are rather fluid among members of the population under study here (i.e., a student sample). Neither type of AVT emerged as superior to the other for general purposes of recall or enjoyment. Rather, this study points to the importance of moderating intercultural constructs in the prediction of cognitive and affective outcomes.

For the prediction of recall, the critical factor seems to be whether a member of one's family speaks a foreign (i.e., non-English) language. It is unexpected that one's own foreign language proficiency is not the critical factor, but rather one's family environment. It is likely that some habitual exposure to others speaking another language primes one to easily accept listening to another tongue. [\[ii\]](#) This leads us to believe that hearing another language spoken may produce a transferrable skill that allows the participant to read subtitles while not becoming distracted by the [here, Italian] spoken word. Further, it is possible that participants who do *not* have a family member who speaks a foreign language are comparable to the American "monoculturals" studied by Deghani et al. (2015). They found that exposure to a virtual character with a non-U.S. accent (i.e., Middle Eastern) conflicted with monoculturals' social identity and made their native U.S./Western cultural identity frame more salient (242); such findings suggest that accented speech is interpreted and reacted to as an outgroup characteristic. In the current study, hearing a foreign language might have had a similar impact, resulting in a detrimental effect of subtitling for linguistic monoculturals, who found accented/foreign speech to prime a response to the characters as outgroup members, a response that would not be stimulated by unaccented dubbing.

The other significant moderator, that of cosmopolite contact, shows an impact on the outcome of enjoyment, such that those with high cosmopolite contact demonstrate greater enjoyment for the subtitled form, while those with low cosmopolite contact express greater enjoyment for the dubbed form. We may speculate on the mechanism that has produced this outcome, applying the general construct of cosmopolitanism. Those with a lower level of cosmopolitanism may find the subtitled version of a film to represent a vivid separation from their home culture and language, while they may see the dubbed version of a film as a soothing and reinforcing representation that brings the "foreign" film into their own American, English-language comfort zone. Those with a higher level of cosmopolitanism may better accept, appreciate, and even prefer the intercultural diversity represented by the subtitled version of a film. Research by Deghani et al. (2015), as well as Khooshabeh et al. (in press), hints at the possibility that cosmopolitanism may be related to bi/multiculturalism.

This study has added to the repertoire of recall indicators with the construct of "narrative recall," something that has been virtually ignored in previous studies.

While the scale measuring this construct did not reveal significant outcomes in this study, we still propose that it presents a logical counterpart to the more traditional constructs of visual recall and dialogue recall. Indeed, narrative recall seems impervious to AVT type and to intercultural experiential moderators, while both visual recall and dialogue recall are affected by, at minimum, family foreign language use. The independence of narrative recall raises new possibilities with regard to the robustness of this type of recall in AVT situations.

In this study, past exposure to foreign films was positively related to visual recall, regardless of whether the participant viewed the subtitled or the dubbed version of the film (see Table 3). This could indicate a type of learning curve for the extraction of visual information from a moving image presentation within the foreign film context. Experience with foreign-language films might afford one the opportunity to partition attention toward visual cues, more easily separating them from verbal (spoken or written) cues.

One limitation of the current study is that it was executed with only one content exemplar, representing only one language—Italian. Thus, future work ought to probe what differences there might be among languages in the subtitling/dubbing question. For example, Americans may find Italian to be more familiar, and perhaps therefore more pleasant, than languages such as Chinese or Farsi. Research by Dehghani et al. (2015) on accented English speech has found that a Mexican accent did not produce the same type of response as Chinese and Iranian accents, leading the researchers to speculate that a Mexican social identity is less in conflict with monocultural American identity than are Chinese and Iranian identities.

Past research has privileged subtitling; few investigations have seriously considered the viability of dubbed content. This study found dubbing is not “worse” overall in the production of cognitive and affective outcomes, although it is “worse” for certain types of individuals—people with family foreign language use, and with high cosmopolite contact, tend to have some inferior outcomes with regard to recall and enjoyment of a moving image narrative that is dubbed. However, the overall lack of deleterious outcomes from dubbed content deserves further attention.

Generally, this study confirmed the robustness of the filmic narrative. Whether AVT is executed via subtitling or dubbing does not produce across-the-board differences in recall or in enjoyment. Still, the moderating impact of certain intercultural factors needs to be considered, thus raising the possibility of the differential utility of subtitling and dubbing for different population segments, a notion that both scholars and practitioners ought to explore.

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Endnotes

[i] The four measures for visual recall were: “What does the car drive into at the beginning?” (Open-ended); “What happens to Dora’s dress?” (Open-ended); “Where does Guido get the meal so quickly for the last customer he is serving?” (Options: The kitchen, the freezer, another customer’s table, the trash); “How do Guido and Dora meet?” (Options: They are both in a car accident, Guido buys flowers from her, She falls and he catches her, He is her waiter). The four measures for dialogue recall were: “What is wrong with the car at the beginning?” (Open-ended); “What does Guido call Dora?” (Open-ended); “What is the answer to the following riddle: ‘The more there is of it, the more difficulty you have seeing it’?” (Options: Darkness, shadow, light, words); “What does Guido pretend to explain to the children?” (Options: How to make garlic bread, how the Aryan race is superior, basic anatomy, recent Italian history). And, the four measures for narrative recall were: “Where does the film take place?” (Open-ended); “When does the film take place?” (Open-ended); “What does Dora do for a living?” (Options: A nurse, a teacher, an explorer, a florist); “What does Guido do for a living?” (Options: A teacher, a doctor, a taxi driver, a waiter).

[ii] It should be remembered that in this study, the subtitled condition presented audible dialogue in Italian, a language spoken by only six participants in the study.

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