

# What Happens to Silences in Audiovisual Translation? A Quantitative Study of American and Japanese Dubbed Films<sup>1</sup>

## Reito Adachi Kurashiki City College, Okayama, Japan

Received: 08/11/2022 Accepted: 07/03/2023

#### Abstract

The purpose of this paper is to contribute to the field of audiovisual translation studies by quantitatively examining the acoustic strategies used in the process of translating American films into Japanese and Japanese films into English. Focusing on silences in 120 versions of 35 American movies and 25 Japanese movies in their original language and in their respective translated versions in the genres of drama, science fiction (sci-fi), horror and animation, the author conducted a comparative analysis between languages and genres. The results showed it can be surmised that the incorporation of silences in the translation process arises not only due to the language and culture of the translation language, but also stem from the characteristics of specific genres. The findings highlight the importance of studying audiovisual translation further not only from a verbal perspective, but also from an acoustic perspective.

Key Words

Audiovisual translation, silence, American and Japanese movies, genre, dubbing

**3** 80

<sup>&</sup>lt;sup>1</sup> This paper is the English-translated and substantially revised version of the author's article originally published in Japanese: Adachi, R. (2018) 'Nichibeieiga fukikaeban ni okeru chinmokusu no janrukan hikaku [Comparison of the number of silences in different genres of dubbed American and Japanese movies].' *Bulletin of Kurashiki City College*, 61, pp. 1-9. Permission for republication from the bulletin has already been obtained.

#### 1. Introduction

The purpose of this paper is to clarify aspects of the adaptation of acoustics in translations of Japanese and American movies, in order to provide fundamental background information to bolster audiovisual translation (AVT) research between what Edward T. Hall calls low-context and high-context cultures (Hall, 1959, 1966). Hall founded many concepts of intercultural communication, including proxemics, polychronic and monochronic time, and low-context and high-context cultures. His idea of low- and high-context cultures is one of the most important and valid components of the field of cross-cultural interaction (Kim, Pan, and Park, 1998). According to Hall, nonverbal signals are less important in low-context cultures. Most contextual elements require explanation, while high-context cultures tend to concentrate more on non-verbal elements. Many cultural elements are taken for granted without being said directly. This can cause confusion or misunderstanding to people who are unfamiliar to the unspoken, unformulated or inexplicit rules of a given culture. Countries where low-context culture is dominant include the United States of America, Germany, Switzerland and Scandinavia, while Japan, Spain, France, Italy and Middle East are examples of the countries of highcontext cultures.

As typical representations of low- and high-context cultures, the author studied 35 American and 25 Japanese movies, plus a total of 60 versions of translations between Japanese and English, and compared changes in the number of silences in each translation from their respective original languages (i.e., the language of the primary text before translation) into the target language (i.e., the language of the text after translation). Genres compared were drama, science fiction (sci-fi), horror, and animation. This comparative analysis investigated the differences between the languages in terms of the number of silences as well as differences by genre.

Audiovisual media (AVM), which includes movies, create meaning through a mixture of verbal information such as speech, and non-verbal information such as images and sound. Delabastita (1989) and Zabalbeascoa (2008) classified verbal and non-verbal components into two communication channels, audio and visual. AVM texts were shown to be comprised of four codes, namely (1) visual-verbal, including subtitles and text on screen, (2) audio-verbal, including spoken words, (3) visual-nonverbal, including (moving) images, and (4) audio-nonverbal, including sound effects and background (non-diegetic) music. It should also be added that Chaume (2004) classified

text codes in AVM into 10 types, with six of these concerning visual channels, and the remaining four, audio channels. In AVM, acoustic elements such as sound effects and background music have a major impact via implying the psychological states of dramatis personae and communicating the mood of scenes and sequences, thereby giving the viewer the sense of being present. The author thus sees recognition of the fact that audio elements have a fixed place as fundamental conditions of AVT, although analysis of verbal (language) elements has taken precedence in ATV studies. Because silence forms as integral a part of communication as sound, including in music, in sound effects and in the spoken word, research that focuses on acoustics-related aspects of AVT including silence should be further investigated to clarify the form and function of audio elements.

This paper takes cognizance of this issue, and focuses on silence as a non-verbal element pertaining to the audio channel. Silences and pauses (intervals between speech) have already been the subject of research in creative works, including literary media (Poyatos, 1997). Conventionally, however, since the characteristics of silence as a paralinguistic or non-linguistic (non-verbal) element are most clearly expressed in audio media rather than in textual (written) media, movies are an appropriate subject matter for the present study. By clarifying the treatment of silences in the translation process between Japanese and American movies, the author hopes to illuminate the sound aspects of AVT from a high-context culture (Japan) to a low-context culture (America) and vice versa.

#### 2. Prior research

Classification and analysis of silence under communication theory has progressed mainly through qualitative approaches, where silence in daily conversation has been considered an intermediary element in communicating assertions of speakers and listeners. Levinson (1983), for example, looked at the silence that occurs when speakers "take turns," and made a detailed analysis of four types of silences: "pauses," when one speaker is speaking; "gaps," when the speaker changes; "lapses" of silence during the gaps when the speaker changes, such that no one in particular takes the initiative to speak; and significant/attributable silence, when there is deliberate silence when the speaker changes. Taneichi (2014) made a more detailed classification of silence by introducing the perspective of mutual interactions (pragmatic acts) into the research of Sacks, Schegloff, and Jefferson (1974). According to Taneichi, the

functions of silence can be viewed under six categories: pause, gap, lapse, significant/attributable silence, mute, and linger.

Though the above-mentioned series of studies modeled communication performed by persons sharing the same culture, Poyatos (2002) discussed silence extensively from various aspects including cross-cultural interactions. He brought greater depth to the semiotic examination of silence, basing his analysis on the following categories: silence that does not function to communicate meaning ("non-signs"); silence that is not used as a substitute for sound or (spoken) words, but which has inherent meaning ("signs proper"); silence that expresses meaning due to a lack of words ("zero signs"); and silence that attaches meaning to events (activities) or signs occurring before, after, or simultaneously ("carriers of the preceding activities; anticipator of the succeeding activities; receptacles for light, sound and other signs; enhancing framing for the visual environment"). (p. 303) These are examples of qualitative studies of silence that are valid and effective not only in looking into the function of silence in a given situation deeply, but also in interpreting the implications of quantitative data on silence.

Numerical surveys of silence have also been conducted through quantitative approaches. From the viewpoint of cross-cultural communication, Yamada (1997, p. 76-79) demonstrated in a numerical way that Japanese speakers in real life insert pauses and silences into dialogue more frequently than American speakers. Her research suggests that silences could provide an interesting standpoint from which to compare the characteristics of Japanese and American films, which is highly relevant to the subject of the present study. Furthermore, Adachi (2016), who used Hayao Miyazaki's animation movie Sen to Chihiro no Kamikakushi (Spirited Away) to compare the original Japanese version with its translated versions from six countries—the United States version (English), French version (French), German version (German), Czech Republic version (Czech), Taiwanese version (Mandarin Chinese), and Korean version (Korean)—to analyze how silence in a Japanese movie is adapted during the translation process. The results revealed that, as far as Spirited Away is concerned, the number of silent segments was different in the translated versions. Specifically, the United States version had the fewest instances of silence. The other versions had more instances of silent segments.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> According to Adachi (2016), four of the six foreign-language versions characterized by high-context cultures rank higher than the other language versions that belong to low-context cultures. Specifically, the Czech, Korean, French, and Chinese versions, which belong to high-

Although silence has been the object of studies for a long time, little is known about adaptations of silence in AVT. Large-scale empirical surveys based on quantitative data are practically scarce in AVT study. This is probably due to the lack of development of methods for collecting massive acoustic data and for performing effective analyses. Still, as Cheng (2017) indicated from the perspective of research on movie translations, "Visual information and sound effects may complement verbal information but also pose problems for translation." (p. 25) More specifically, Nakane (2012, pp. 162–164), who looked at issues of silence in intercultural communication, stated that, just as with (spoken) words, silence was also multifunctional, with cultural differences occurring in the reception of silences, meaning that silences could be the source of misunderstanding in intercultural communication. She further elaborated:

The problem is amplified when investigating silence in intercultural encounters as the researcher may need to consider varying assumptions and norms about use of silence across cultures. (p. 158)

Thus, non-verbal elements including silence are a double-edged sword: not only do they complement speech communication, but they can also hinder or prevent communication. Considering this point, one should be careful when analyzing not only images (visuals) but also acoustic elements within AVT.

## 3. Method Section 3.1 Selection of works

The author compared the numbers of silences in 120 versions of 35 American movies and 25 Japanese movies in their original language and in their respective translated versions. As for genres, there were 14 dramas (eight American, six Japanese), 15 sci-fi (10 American, five Japanese), 13 horror (eight American, five Japanese), and 18 animation (nine American, nine Japanese). Movies within these genre types were selected based on classifications of "Most Popular by Genre" in the Internet Movie Database (IMDb).

There was a certain inequality in the number of samples selected, owing to uneven variations in translated works between languages and genre types. For

context cultures, dominate the top ranks of the number of silences, while the US English version has the least number of silences and the German version comes in second last. It seems reasonable to suppose that these results correspond to Hall's notion of context.

example, the number of Japanese movies translated into English is overwhelmingly small compared to the number of American movies translated into Japanese. Also, in terms of translation format, while English-language dubbing of Japanese movie animations is the mainstream in consideration of children's literacy level, in other genres, subtitles are commonly used. Thus, depending on the genre, severe difficulties were faced in finding dubbed versions. The number of Japanese comedies dubbed into English is especially small, meaning that sufficient English-language versions could not be collected. Further, while adventure and action are popular genres, there are many cases of overlap in the genres employed, as is the case with action adventure, sci-fi adventure and action-drama films. For these reasons, three representative movie genres—adventure, action and comedy—were not selected in the present study.<sup>3</sup>

## Section 3.2 Definition of silence

Silence takes a wide variety of forms, and multiple definitions are possible. These may differ by how silences are used, and differences in use depending on context. For example, silence can include not only a state of no audio whatsoever, but also other cases, such as when there is background music but no spoken words, cases where the spoken words have no meaning, deliberate refusals to communicate, and so on. In this paper, "silence" is considered a state where, for a certain continuous period of time, there is no sound or a state close to no sound. Specifically, following Adachi (2016), silence is defined as a state which continues for 10 seconds or longer when sounds are weaker than -40 decibels full scale (dBFS).<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> According to The Numbers, which is a movie industry data website to create and provide data concerning movie box-office performance and projections, in the period from 1995 through 2022, the top five revenue-generating genres in the United States of America were, in order from number 1 to number 5, adventure, action, drama, comedy, thriller/suspense. <sup>4</sup> Generally, in sound output in North America, control is performed using -20 dBFS as reference audio (original sound), while in Europe, this is -18 dBFS. Also in North America, in the adjustment of roundness level for in-movie speech, the desired minimum value is -13 dBFS (Williams, Jones, Layer and Osenkowsky, 2007, p. 1324).

## Section 3. 3 Extraction of audio (sound) data

For extraction of audio data, first, audio code number 3 (AC-3) was taken from a DVD using the Loudness function of the audio editing software Adobe Audition. Then, the fundamental conditions were prepared, including volume equivalence for all files. The loudness was calculated using the ITU BS1770-2 algorithm—a standard of the Radiocommunication Sector of the International Telecommunication Union.<sup>5</sup>

The results for number of silences in each work as detected with Adobe Audition are shown in Table 1 and the average occurrences of silences for each language treatment by genre are shown in Table 2. The mean number of silences by genre and by individual works are shown in Tables 3 through 10.

	No. of silences in American version (English)	No. of silences in Japan–version (Japanese)
Overall average for American movies	7.43	8.03
Overall average for Japanese movies	12.88	19.64

Table 1. Number of silences (overall) in original and translated versions of Japanese and American movies

		Average			
Genre	Country	American version (English)	Japan–version (Japanese)		
Drama	American Movies	11.25	11.38		
Diama	Japanese Movies	18.50	28.50		
Sci-Fi	American Movies	7.70	7.60		
00111	Japanese Movies	3.20	8.20		
Horror	American Movies	8.13	11.38		
1101101	Japanese Movies	20.80	31.40		
Animation	American Movies	3.11	2.56		

<sup>&</sup>lt;sup>5</sup> Other methods of quantitative analysis of film sound include those of Redfern (2020, 2022).

## Reito Adachi

Japanese Movies	10.11	13.56
-----------------	-------	-------

Table 2. The average occurrences of silences for each language treatment by genre

Ame	American Movies (Drama)					
	American version	No. of	Japan –version	No. of		
	(English)	silences	(Japanese)	silences		
1	Cast Away	22	Kyasuto Auei	20		
2	Format Cuma	15	Fuoresuto Gampu:	12		
	Forrest Gump	13	Ichigo Ichie	13		
3	The Blind Side	6	Shiawase no	7		
3	The billiu side	6	Kakurebasho	/		
4	Ghost	11	Gosuto: Nyuyoku no	11		
4	Gliost	1.1	Maboroshi	11		
5	Cinderella	8	Shinderera	7		
6	Gone with the Wind	3	Kaze to Tomo ni Sarinu	7		
7	Dances with Wolves	13	Dansu Uizu Urubusu	14		
8	Lincoln	12	Rinkan	12		
	Average	11.25		11.38		

Table 3. Number of silences (per individual work) in original and translated versions of American movies (Drama)

Japan	Japanese Movies (Drama)				
	American version	No. of	Japan –version	No. of	
	(English)	silences	(Japanese)	silences	
1	Kamui Gaiden	21	Kamui Gaiden	30	
2	Battle Royale	3	Batoru Rowaiaru	13	
3	Genghis Khan	10	Aoki Okami	31	
4	Love and Honor	18	Bushi no Ichibun	13	
5	Azumi	51	Azumi	56	
6	Ashura	8	Ashura Jo no Hitomi	28	
	Average	18.50		28.50	

Table 4. Number of silences (per individual work) in original and translated versions of Japanese movies (Drama)

Ame	American Movies (Sci-Fi)				
	American version	No. of	Japan-version	No. of	
	(English)	silences	(Japanese)	silences	
9	E.T.: The Extra- Terrestrial	5	E.T.	6	
10	Jurassic Park	2	Jurashikku Paku	3	
11	Independence Day	2	Indipendensu Dei	1	
12	Gravity	10	Zero Gurabitei	8	
13	I Am Legend	18	Ai Amu Rejendo	17	
14	Men in Black II	1	Men In Burakku 2	1	
15	War of the Worlds	7	Uchu Senso	6	
16	Back to the Future	2	Bakku to za Hyucha	4	
17	Dawn of the Planet of the Apes	26	Saru no Wakusei: Shinseiki	24	
18	The Terminator	4	Tamineta	6	
	Average	7.70		7.60	

Table 5. Number of silences (per individual work) in original and translated versions of American movies (Sci-Fi)

Japan	Japanese Movies (Sci-Fi)				
	American version	No. of	Japan-version	No. of	
	(English)	silences	(Japanese)	silences	
7	Gammera the Invincible	1	Dai Kaiju Gamera	2	
8	Godzilla	5	Gojira, Mosura, Kingugidora	7	
9	The Machine Girl	4	Kataude Mashin Garu	3	
10	Returner	5	Ritana	26	
11	Robogeisha	1	Robo Geisha	3	
	Average	3.20		8.20	

Table 6. Number of silences (per individual work) in original and translated versions of Japanese movies (Sci-Fi)

Ame	American Movies (Horror)				
	American version	No. of	Japan-version	No. of	
	(English)	silences	(Japanese)	silences	
19	The Sixth Sense	4	Shikkusu Sensu	4	

20	The Exorcist	14	Ekusoshisuto	13
21	What Lies Beneath	21	Howatto Raize Binisu	31
22	The Blair Witch Project	4	Bureauicchi Purojekuto	5
23	The Conjuring	5	Shiryokan	12
24	The Ring	6	Ringu	9
25	Van Helsing	2	Van Herushingu	2
26	Interview with the Vampire	9	Intabyu uizu Vampaia	15
	Average	8.13		11.38

Table 7. Number of silences (per individual work) in original and translated versions of American movies (Horror)

Japai	Japanese Movies (Horror)			
	American version	No. of	Japan –version	No. of
	(English)	silences	(Japanese)	silences
12	Dark Water	9	Honogurai Mizu no Soko kara	28
13	Matango	17	Matango	10
14	Onmyoji	25	Onmyoji	32
15	Neighbor no 13	39	Rinjin 13-go	71
16	Tokyo Gore Police	14	Toukyou Zankoku Keisatsu	16
	Average	20.80		31.40

Table 8. Number of silences (per individual work) in original and translated versions of Japanese movies (Horror)

Ame	American Movies (Animation)				
	American version	No. of	Japan –version	No. of	
	(English)	silences	(Japanese)	silences	
27	Shrek 2	1	Shurekku 2	1	
28	Frozen	3	Ana to Yuki no Joou	4	
29	Shrek	1	Shyrekku	1	
30	Toy Story 2	2	Toi Sutori 2	2	
31	Beauty and the Beast	2	Bijo to Yaju	2	
32	Aladdin	1	Arajin	1	
33	Snow White and the Seven Dwarfs	4	Shirayukihime	1	

	34	Big Hero 6	13	Beimakkusu	10
ĺ	35	The Lego Movie	1	Lego Mubi	1
ĺ		Average	3.11		2.56

Table 9. Number of silences (per individual work) in original and translated versions of American movies (Animation)

Japanese Movies (Animation)				
	American version	No. of	Japan-version	No. of
	(English)	silences	(Japanese)	silences
17	K-On! - The Movie	4	Keion!	9
18	Wolf Children	16	Okamikodomo no Ame to Yuki	16
19	EVANGELION:3.33 YOU CAN (NOT) REDO.	16	Evangerion Shin- gekijoban: Q	25
20	Appleseed	2	Appuru Shido	2
21	Steamboy	4	Suchimu Boi	6
22	Graves of Fireflies	7	Hotaru no Haka	7
23	The Garden of Words	2	Koto no Ha no Niwa	14
24	A Letter to Momo	26	Momo eno Tegami	35
25	Colorful	14	Karafuru	8
	Average	10.11		13.56

Table 10. Number of silences (per individual work) in original and translated versions of Japanese movies (Animation)

## Results and Discussion Section 4.1 Comparison between original language versions in general

As shown in Table 1, English-language versions of American movies had a mean number of 7.43 silences per work according to the definition used for this study. Meanwhile, Japanese-language versions of Japanese movies had a mean number of 19.64 silences. In the 120 works examined in the present study, in the original language stage, Japanese movies had 2.64 times as many silences on average as American movies. This result, then, shows a major difference in average numbers of silences at the pre-translation stage of original-language versions. In short, the American movies in their original

English-language versions have less silences on average than the Japanese movies in their original Japanese-language versions.

Section 4.2 Comparison between original and translated versions in general

Comparing changes after translation, when Japanese-language Japanese movies were translated into English, there was a major decline in the number of silences, from 491 to 322 (average number of silences fell from 19.94 to 12.88). This was a reduction rate of 34.4%. Meanwhile, when English-language versions of American movies were translated into Japanese, there was a very slight increase in the total numbers of silences, from 260 to 281 (average number of silences rose from 7.43 to 8.03). This was an increase rate of 8.1% from the original. To sum up, the average number of silences in the original Japanese movies decreased after being dubbed into English, while that of the original American movies remained almost unchanged but with a slight increase. These results corroborate the previously mentioned findings that Adachi (2016) obtained from his analysis of *Spirited Away*.

One can conclude that in regard to the number of silences occurring in these Japanese and American movies, there was not only a difference in the original-language versions, but also a difference between languages in the adaptation work occurring during the translation process. That is, while there was a more or less faithful retainment of silences in the Japanese translation of American movies, the English translation of Japanese films showed a stronger tendency to follow the orientation of the target language (i.e., English). It may safely be said that the influence of the difference between high-context Japanese culture and low-context American culture was clearly demonstrated in how silence is used both in pre- and post-translation versions on the whole.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Because of its preliminary character, the present study calls for further investigation before any decisive conclusions can be drawn. A comparison between a larger and more representative sample of films in high-context cultures and low-context cultures could provide more evidence for these results.

### Section 4.3 Comparison between original and translated versions per genre

As shown in Table 2, original Japanese-language movies with the highest average number of silences were, in order of genre, (1) horror, (2) drama, (3) animation, and (4) sci-fi. In original American movies, this order was (1) drama, (2) horror, (3) sci-fi, and (4) animation. Comparing the number of silences between original language versions in each genre, a noticeable difference was seen in animation and horror. The original Japanese-language animation and horror movies had 4.36 times and 3.86 times as many silences as the original American counterparts, respectively. In contrast to American movies, Japanese movies in these two genres are considered to exhibit distinct characteristics of extensive use of silences. On the contrary, there was almost no difference between Japanese and American movies in their original versions in sci-fi. The original Japanese sci-fi movies had only 1.06 times as many silences as the original American sci-fi movies. It seems possible that sci-fi is not under as strong of an influence of cultural and linguistic differences as the other three genres.

With regard to the change in the number of silences in the process of translation, the results turned out to be rather complicated. First, while silences in American animation movies decreased by 17.68% when translated into Japanese, silences in American horror movies increased by 39.98% on average in the Japanese-translated versions. In addition, there was no big difference in the genres of drama and sci-fi. It turned out that the very moderate increase in the number of silences on the whole in translating American movies into

\_

<sup>&</sup>lt;sup>7</sup> The clearest difference between Japanese and American movies was the number of silences in horror. On the one hand, Japanese horror movies in their original Japanese-language versions had a mean number of 31.40 silences and those in their English-translated versions showed a lower mean number of 20.80. On the other hand, however, American horror movies in their original English-language versions had a mean number of 8.13 silences and those in their Japanese-translated versions showed a higher mean number of 11.38. Furthermore, in comparison between the same languages, original Japanese horror movies in their original Japanese-language versions had 2.76 times more silences than the Japanese-dubbed American horror films, and, likewise, the English-dubbed Japanese horror films had 2.56 times more silences than the original American horror movies in their English-language versions. It is evident that these Japanese horror films both in their original and translated versions had more silences than their American counterparts.

Japanese was attributed mainly to that of horror movies. Generally speaking, in the process of translating American movies into Japanese, no major changes were observed in terms of overall average number of silences; however, in terms of genres, the number of silences in horror and drama films increased in Japanese translations, a result of deep interest.

As for Japanese movies, silences showed a tendency to decrease in the process of translation into English in all of the genres. As for the reduction in the number of silences in English-language versions of Japanese movies, horror and drama were the genres where the most remarkable differences were found. The reduction rates for the number of silences were 33.76% in horror and 35.09% in drama.

It may be helpful to summarize the main points that have been made in this section. First, in comparing original-language versions, Japanese horror and drama movies had the most silences. Second, in the process of translating American English-language films into Japanese, of the four genres, only horror showed an increase in the number of silences. Third, in the process of translating Japanese-language films into English, horror and drama showed the greatest decrease in the number of silences. These results suggest that silence as a non-verbal element tends to be used most effectively in horror movies in the high-context Japanese culture.

As for verbal/linguistic aspects, prior research found that an orientation toward assimilation is employed according to the target culture (Venuti, 1995), and this finding has been underpinned by a variety of studies on translation of Japanese films (Yamada, 2004, pp. 203–204; Tamura, 2010, pp. 98–99). The results of the present study verified that not only for verbal/linguistic aspects, but also for acoustics aspects, adaptations are being shaped by excluding silences, as these are elements involving cultural differences. However, overgeneralization and stereotyping should be avoided. Imbalances were found between genres within the same language and among specific works (movies) in the same genre. Since silence is one of the key components of nonverbal

<sup>&</sup>lt;sup>8</sup> It is worth noting that in regards to Japanese movies translated into English, while overall, the tendency is towards a reduction in the number of silences, interesting exceptions were also found, specifically in three titles found in *Bushi no ichibun* (English title: *Love and Honor*, Japanese movie 4, drama in Table 4), *Matango* (Japanese movie 13, horror in Table 8), and *Colorful* (Japanese movie 25, animation in Table 10). It was found that the number of silences in these three movies increased in the English-translation version. Although many Japanese works had a lower number of silences in their English-language version, the number of silences was increased in those works by overcoming the constraints of sound (acoustic) synchronization,

communication, the findings of this study serve as grounds for suggesting the significance and possibilities of advancing research focused on nonverbal elements, including acoustic ones, in AVT.

#### 5. Conclusions

This paper explored acoustics-related tendencies in film adaptations, focusing on changes in the number of silences in the process of translating Japanese and American movies. In this study, 120 versions were used (35 American movies and 25 Japanese movies in their original languages and in their respective translated versions). Regarding the versions studied, it was clear that there were differences between Japanese-to-English translations and English-to-Japanese translations in their approach to handling silences. First, in general, in the process of translating from English to Japanese, there were no major changes in the number of silences. Conversely, in the process of translating from Japanese into English, there were dramatic reductions in the number of silences. Second, imbalances were found between genres within the same language, and it was determined that this difference was especially large in Japanese-to-English translations. Further differences were found among specific works (movies) in the same genre.

From these results, it can be surmised that the adaptation of silences occurring in the translation process not only arises due to the differences between languages and cultures, but also stems from the characteristics of specific genres and works (i.e., individual movies). This is what makes "context adaptation," to echo Gote Klingberg, necessary and effective in reducing cross-extralinguistic opacity so as to reproduce a similar response to that of Japanese audiences in the minds of American audiences and vice versa.

The present study was based on results of quantitative investigation of silences in Japanese and American movies. Future verification is necessary to determine whether the same results would be obtained after more extensive comparison and analysis of different language versions of American and Japanese films have been conducted with the aim of theorizing orientations and strategies used in the adaptation of silences, and the functions thereof.

etc. This is a theme that requires detailed investigation when considering acoustics adaptations within AVT. The author intends to further investigate this topic in another article.

### **Funding**

This work was supported by the Japan Society for the Promotion of Science (JSPS) under KAKENHI [grant number 15K02374].

### References

- Adachi, R. (2016) 'Dubbing of silences in Hayao Miyazaki's *Spirited Away*: Comparison of Japanese and English language versions.' *Perspectives: Studies in Translation Practice and Theory*, 24(1) pp. 142-156. [Online] [Accessed on 26th June 2021] DOI 10.1080/0907676X.2015.1024694
- Bosseaux, C. (2008) 'Buffy the vampire slayer: Characterization in the musical episode of the TV series.' *The Translator*, 14 pp. 343-372.
- Chaume, F. (2004) 'Film studies and translation studies.' Meta, 49(1) pp. 12-24.
- Cheng, Y. (2014) Chinese subtitles of English-language feature films in Taiwan: A systematic investigation of solution-types. Doctoral Dissertation. University of the Australian National University. [Online] [Accessed on 20th August 2019] https://openresearch-repository.anu.edu.au/bitstream/1885/11789/1/Cheng\_Y.J.\_2014.pdf
- Delabastita, D. (1989) 'Translation and mass-communication: Film and T.V. translation as evidence of cultural dynamics.' *Babel*, 35(4) pp. 193-218.
- Hall, E. (1959) The silent language. New York: Doubleday.
- Hall, E. (1966) The hidden dimension. New York: Doubleday.
- Kim, D., Pan, Y., and Park, H. S. (1998) 'High- versus low-context culture: A comparison of Chinese, Korean, and American cultures.' *Psychology & Marketing*, 15(6) pp. 507–521.
- Klingberg, G. (1978) "The Different Aspects of Research into the Translation of Children's Books and Its Practical Application." In Klingberg, G. and Orvig M. (eds.) Children's Books in Translation: The Situation and the Problems. Stockholm: Almqvist and Wiksell International, pp. 84–89.
- Levinson, S. C. (1983) Pragmatics. Cambridge: Cambridge University Press.
- Nakane, I. (2012) 'Silence.' In Paulston, C. B., Kiesling, S. F., and Rangel, E. S. (eds.) Handbook of intercultural discourse and communication. Malden, MA: Wiley-Blackwell, pp. 158-179.
- The Numbers. (n.d.) "Top-grossing genres 1995 to 2017." In *Domestic movie theatrical market summary 1995 to 2022*. [Online] [Accessed on 20th June 2022] http://www.the-numbers.com/market/

- Palencia Villa, R. M. (2002) La influencia del doblaje audiovisual en la percepción de los personajes [The influence of the audiovisual on the perception of the characters]. Doctoral dissertation. Universitat Autònoma de Barcelona, Barcelona.
- Poyatos, F. (ed.) (1997) *Nonverbal communication and translation.* Amsterdam: John Benjamins.
- Poyatos, F. (2002) Nonverbal communication across disciplines, volume II: Paralanguage, kinesics, silence, personal and environmental interaction. Amsterdam: John Benjamins.
- Redfern, N. (2020). 'Quantitative Analysis of Sound in a Short Horror Film.' Humanities Bulletin, 3(2), pp. 246–257. [Online] [Accesssed on 1st February 2023] https://journals.lapub.co.uk/index.php/HB/article/view/1682
- Redfern, N. (2022) Computational Analysis of a Horror Film Trailer Soundtrack, Journal of the Japanese Association of Digital Humanities 6 (1): 11-20. [Online] [Accessed on 10th December 2022] https://doi.org/10.17928/jjadh.6.1\_11.
- Sacks, H., Schegloff, E. A., and Jefferson, G. (1974) 'A simplest systematic for the organization of turn-taking for conversation.' *Language*, 50(4) pp. 696-735.
- Tamura, C. (2010) 'Nippon no animashon eiga no eigo fukikae-ban niokeru serifu no tsukekuwae ni kansuru kenkyu: Sutajio Jiburi no anime sakuhin no bunseki kara [A study of addition of speech lines in English dubbed version of Japanese animated movies: From the analysis of animations of Studio Ghibli].' Invitation to the Translation Studies, 4 pp. 87-105.
- Taneichi, A. (2014) 'Koi to shiteno chinmoku no bunrui: Kaiwa ni shojiru chinmoku no saiko ni mukete [Reconsideration of silence in conversation: Toward a typology of silence as pragmatic acts].' *Intercultural communication review*, Rikkyo University, 12 pp. 145-156.
- Venuti, L. (1995) The translator's invisibility: A history translation. London: Routledge.
- Williams, E. A., Jones, G. A., Layer, D. H., Osenkowsky, T. G., (eds.) (2007). *National association of broadcasters engineering handbook*. 10th ed., Burlington, MA: Focal Press.
- Yamada, H. (1997) Different Games, Different Rules: Why Americans and Japanese Misunderstand Each Other. New York: Oxford University Press.
- Yamada, K. (2004) 'Eigo-ban amime sakuhin ni miru honyaku no mondai: Sen to Chihiro no Kamikakushi no baai [Problems of translation seen in English-translated animations: In the case of Spirited Away].' Journal of the Faculty of Global Communication, Siebold University of Nagasaki, 5 pp. 195-205.
- Zabalbeascoa, P. (2008) The nature of the audiovisual text and its parameters. In J. Diaz-Cintas (ed.) *The didactics of audiovisual translation*. Amsterdam: John Benjamins, pp. 21-37.