Making Foreign Animation Films Accessible to Blind and Visually Impaired Audiences: A Multi-sensory Perspective

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Abstract

As a modality of audiovisual localisation, audio subtitling (AST) is positioned at the interface between subtitling, audio description (AD) and voice-over (Orero and Braun, 2010). The paper will summarise the results deriving from the screening of a foreign stop-motion animation film with AD and AST in Greek in combination with a pre-screening touch tour and post-screening questionnaires. The reception study was aimed at Greek adult blind and visually impaired people, aiming at finding the best strategies in synchronisation and voice delivery. It appears that the linguistic choices, technical aspects and voicing strategies have an effect on emotional activation and enjoyment, while, in the framework of a multi-sensory approach, touchable objects along with AD could encompass a more engaging and entertaining experience for the audience.

Acknowledgement

1. Introduction

1.1. Aim of the paper

Audio description (AD) is an intersemiotic translation in which images are translated into words (Mangiron and Maszerowska 2014). As an assistive service, it enables blind and visually impaired people to enjoy audiovisual content, which, in the present paper, is a foreign, stop-motion, short animation film, targeted at adults. As multimodal texts, films make

meaning through a combination of different modes of communication, namely written text on screen, spoken language, moving images, music, and sound effects. With regard to foreign films, namely films that are not dubbed and their language is other than the language of the target viewers, the original dialogue or narrative of the film should be audio subtitled. In other words, the aural text needs to be translated, and annotated, and then a "voice actor", "voice talent" or synthetic (computerised) voice should record it in the target language. The result would be two audio tracks, the one with the AD and the other one with the AST, which will be mixed and synchronised with the original video file.

This paper constitutes part of our wider study on the topic. In particular, linguistic aspects deriving from a reception study based on the screening of a short animation film to Greek blind and visually impaired people will be presented and discussed. The AD script was drafted in Greek, annotated and edited following the advice of a visually impaired person as a consultant to our project, while the original subtitles were translated into Greek. Both new audio files were recorded, mixed, and synchronised. In the view of a comparative study with regard to voice delivery, the AD script was recorded twice, once by a professional actress and the second time by a human female voice without an acting background, while the AST were read by the same voice talent in both cases. In the framework of a multi-sensory approach, sensory aspects are investigated based on a touch tour conducted prior to the screening with the original touchable material sent from the production company solely for the purposes of the current research. After that, questionnaires, including questions regarding linguistic choices, voice delivery, synchronisation and sensory engagement, were read to the blind and visually impaired viewers, and feedback was gathered. That is, Greek adult blind and visually impaired members of the District Unions of the Blind of Western Greece in Patras and Northern Greece in Thessaloniki, and the Association of the Blind Ludwig Braille also in Thessaloniki participated.

1.2. Brief background of the study

According to Holland (2009), our senses are interdependent. Focusing primarily on making three-dimensional stop-motion animation accessible, we introduce the possibility of a multi-sensory approach to the blind and visually impaired people. Stop-motion as a technique is used in animation to bring static objects to life on screen. These objects can be, among others, puppets, clay models or miniatures of real-world items, which are physically moved in small increments and captured one frame at a time to create the illusion of motion. According to Wells, the fabrication of objects can be defined as "the re-animation of materiality for narrative purposes" (1998, 90), while he continues stating that it "plays out an alternative version of material existence, recalling narrative out of constructed objects and environments, natural forms and substances, and the taken-for-granted constituent elements of the everyday world" (1998,

90). Taking into consideration that hearing and touch are the main senses with which blind and visually impaired people have access to the world around them, and given the fact that in museum exhibitions and theatre performances, descriptions may be combined with touch tours, which constitute an essential part of the audience experience since, on the one hand, the audience can feel the exhibits and showpieces and, on the other hand, the audience can feel the set, the props and the costumes, a pre-screening touch tour is applied to this project. Besides, stop-motion animation evokes the sense of materiality. Animation uses objects that have some sort of emotional inner life that is somehow conserved and liberated by touch ("tactile memory") (Wells, 2014). Interestingly enough, the multi-sensory approach is also used as a learning tool since it engages different senses. Provided that there are time limitations when audio describing and audio subtitling foreign films with short duration, a touch experience could be important for a closer relationship between the audience and the film. That way the viewers will not be distant from the cinematic experience overall, while at the same time they will come closer not only to the tactile elements and details of the film, but also to the stop-motion as a technique and animation as a film medium.

With regard to the linguistic aspects of this presentation, the four fundamental elements of audio description according to Snyder (2008) are observation, edit, language, and vocal skills. "The role of a describer is to convey or summarise the visual information" (Fryer 2016, 26). Thus, effective describers should see an audiovisual product with a heightened awareness to truly notice what is seen. "The eye is quicker than the fastest of mouths… There may be seven or eight things that you would like to take up but you won't have time for but three or four – you have to prioritise" (Pfanstiehl 1995, cited in Smith 2015, 47). This means that the describer needs to make choices, edit and decide what is (not) a priority for description, especially in such a limited running time like the 5-minute film we have used for this presentation. In terms of language, "the audio describer might say that a few well-chosen words conjure vivid and lasting images" (Snyder 2005, 197). As an active 'see-er', the audio describer could select the right word rather than the almost right word. However, vocal delivery is also significant because it is not always what you say but how you say it. In other words, a voice talent can make meaning with their voice. Same applies to audio subtitling which is based on the "aurally rendered and recorded version of subtitles with a film" (Reviers and Remael 2015, 52). AST track can be delivered either with a dubbing effect or a voice-over effect, since it drags characteristics from other AVT strategies such as dubbing, voice-over or subtitling (Braun and Orero, 2010). Given the scarce research of this topic in Greece, foreign guidelines, local studies and limited practical implementations in home country were taken into consideration.

2. Research methodology

2.1. Material used

Based on a 150-word poem by Ron Koertge, *Negative Space* is a short animated film that depicts a father-and-son relationship through the art of packing a suitcase. It is a 5-minute, Oscar-nominated, puppet film by Max Porter and Ru Kuwuhata (2017), the original language of which is English. *Negative Space* has been screened at more than 140 festivals and has won 68 awards and nominations, including the Nomination for Best Animated Short Film in the 90th Academy Awards and the Nomination for Best Animated Short Subject in the Annie Awards (2018). The directors' purpose was to restructure the prose poem of the same name (*Negative Space*), cinematically. The poem was originally published in the collection "Sex World" by Ron Koertge (2014) at Red Hen Press, and can be read below:

"My dad taught me to pack: lay out everything. Put back half. Roll things that roll. Wrinkle-prone things on top of cotton things. Then pants, waist-to-hem. Nooks and crannies for socks. Belts around the sides like snakes. Plastic over that. Add shoes. Wear heavy stuff on the plane.

We started when I was little. I'd roll up socks. Then he'd pretend to put me in the suitcase, and we'd laugh. Some guys bond with their dads shooting hoops or talking about Chevrolets. We did it over luggage.

By the time I was twelve, if he was busy, I'd pack for him. Mom tried but didn't have the knack. He'd get somewhere, open his suitcase and text me—"Perfect." That one word from him meant a lot.

The funeral was terrible—him laid out in that big carton and me crying and thinking, Look at all that wasted space."

As it is mentioned in an interview at the Animation World Network (AWN), the directors in this film "mined their own childhood memories of specific objects, textures and banal routines to portray the small things that make up a large part of life" (AWN 2017). Since Ron's poem was minimal, the directors themselves stated that "there was enough space to bring [their] personal experiences to the story with visual metaphor and subtext" (AWN 2017). Given the fact that their memories were closely connected to the sensations of texture and touch, similar connections were hoped to be activated for the people who watch the film. But how can a blind or visually impaired person 'see' them?

Negative Space is a stop-motion film. Stop-motion is a filming technique in which successive positions of objects are photographed to create the illusion of movement (Solomon, 1989). The objects in this film are puppets and miniatures, which "beg to be touched" (Barker 2009, 137) and can engage the audience since they are directly related to the notion and sense of touch. The fabrication considerations of the film were made, not just by how they looked, but how they moved in space. Aligned to the

physical act of animating is the process of fabrication, which has been defined by Wells (1998, 90) as "the re-animation of materiality for narrative purposes". In this framework, we made the film accessible to the Greek blind and visually impaired audience not only with audio description and audio subtitles, but also with a pre-screening touch tour to achieve a multi-sensory experience.

2.2. Participants

For the purpose of the present reception study, there was a close cooperation with 30 adult members from the District Unions of Western Greece in Patras and Northern Greece in Thessaloniki, and the Association of the Blind Ludwig Braille also in Thessaloniki. After coming in contact with the presidents and secretaries of the aforementioned associations to describe our project and ask for permission to screen the film to their members at their offices, 11 women and 19 men, aged between 18 and 65 years old, participated. Their motivation was to be active in any project had to do with them and to give their feedback so as to be able to enjoy qualitative and accessible audiovisual content based on their needs and preferences. Our audience was varied. In particular, both blind and visually impaired people participated, having either partial or complete sight loss, and previous or no access to such a research or similar experience in the past. It is noted that the biggest part of the audience took part in our three previous films in the framework of the same project, and their feedback was valuable for the fourth film that is presented in this paper.

2.3. Pre-screening touch tour

Bishop Berkeley's New Theory of Vision argued that vision is not a purely optical process, but involves a 'visual language' requiring the coordination of optical and tactile impressions in order to construct a coherent, stable visual field (1709, cited in Mitchell 2005). As W.J.T. Mitchell has put it, visual media may involve the other senses, especially touch and hearing, since "all media are, from the standpoint of sensory modality, 'mixed media'" (2005, 257-266). In the loss of vision, the audience who was blind or visually impaired had the opportunity to touch the original sets to familiarise themselves ahead of the film. For this approach, the production company sent us all the material needed (video, subtitles), plus original touchable material to make the blind and visually impaired audience "feel" the set, the props and the protagonists (puppets) of the film prior to its screening. During this experience, information was given to the Greek audience about the procedure to follow. The time each participant devoted to touch the objects was different and had to do with factors such as partial, complete, inherent or acquired sight loss.

2.4. Screening of the film with audio description and audio subtitles

Films, and animation as a film medium, are considered to be multimodal texts since they dynamically combine several semiotic systems – from moving image, audio, spoken language, written language to space, and gesture (acting) – to convey meaning. To make blind and visually impaired people "see" the foreign language film through hearing, audio description and audio subtitles are needed. It is an access service that enables those who have a partial or complete sight loss enjoy a foreign film. The audio description script, as an intersemiotic activity, is written to be read and spoken to during the gaps in dialogue or sound effects in the film. Similarly, the original subtitles are translated and recorded as a separate audio track. Both audio tracks (audio description and audio subtitles) are synchronised and mixed with the film as such. To ensure that the audio description script and the dialogues in the target language (Greek) are readable and consistent, we consulted a visually impaired person, who is also president of the Regional Association of Blind Western Greece (Patras), prior to the recording. The feedback was valuable and adjustments were made respectively. It should be noted that the original video file, the original dialogues, and important information about the plot and background information were provided to us by the directors and their company.

The main challenge with regard to the audio description script writing of the film *Negative Space* was its short running time (5 minutes and 30 seconds) with many visual details and allegories, namely metaphors and symbolic representations, like when directors animated the contents of a suitcase (clothes) like waves on a beach. Sound and silence played a crucial role in this film as well, thus they should be respected too. According to O' Rawe (2006, 395), "[silence] is never absolute and achieves significance in relation to what it denies, displaces, or disavows. It is impossible to think, speak or write about silence without invoking sound"; thus sound and silence are complementary and mutually inclusive. Even if silence would be a good fit for audio description, it may also constitute a film element to keep the audience's interest and increase their expectation on the plot development. Given the fact that silence is part of the film, listeners could be allowed to hear sound effects, music or even experience silence periodically throughout the description (Snyder 2014, 41). In the current film, the original sound was in perfect support of the story and there was a strong coherence between the spoken word and the overall sound. What is more, silence is crucial especially in the last scene. According to Bram Meindersma, composer and sound designer of the film, "instead of noise, we – the audience – are met with silence. A perfect, unerring silence that lasts for an entire six seconds, before the last line of the film is uttered, and when it is uttered, it's in a near whisper" (Stop Motion Geek 2018).

Taking into consideration the above elements, and having watched the film several times both with closed and opened eyes to "feel" it,

analysed the source text, researched the guidelines outside Greece regarding audio description and audio subtitles (Szarkowska and Jankowska 2015, Remael 2015, Remael, Reviers and Vercauteren 2014, etc.) and explored the limited practical implementations in Greek, the audio description script was drafted, annotated, edited and consulted with a visually impaired person. After relevant adjustments, it was recorded at the studio of the Department of Audio and Visual Arts (Ionian University, Greece), synchronised with the use of REAPER, a complete digital audio production application for computers, offering a full multi-track audio and MIDI recording, editing, processing, mixing and mastering toolset, and re-edited in collaboration with a sound designer from the aforementioned department. In order to conduct a comparative reception study, we created two versions for the film. Specifically, the voice talent used for the first version of the audio description voicing was a professional actress, the voice of whom had received positive comments in previous films we audio described and audio subtitled under the same project, while the voice talent used for the second version was a neutral female voice. For the narration, it was translated into Greek and time coded in order to be recorded. The original voice was mature even if the narrative was by a child who became an adult in the course of the film. This was the reason why we also selected a professional actor for this recording, who adjusted a bit his voice. Moreover, the voice talent adjusted his tone respectively for a more consistent feeling at the end of the film, when silence was present before the last scene and closing titles. The original sound literally defined the room in a negative space. The voice style followed the rhythm of the film the title of which is *Negative Space* meaning in arts the space within, between, and around objects.

2.5. Post-screening feedback

After the pre-screening touch tour and the screening of the film to the participants with audio description and audio subtitles, questionnaires were read to them and round-table discussions followed. The questionnaires included personal questions, plus 15 questions with regard to the presentation of the project, while some of them had sub-questions for more detailed feedback (open-ended and closed-ended questions, Likert-scale questions). The focus was on (i) personal information to create a background of the audience, (ii) sensory approach to validate the usefulness of a touch tour, iii) content and use of language to assess comprehension and presence, iv) voice delivery to investigate any impact on the audience based on the style and synchronisation to find out the optimum combination of all audio tracks. It is noted that all questions were read individually to each participant, and all participants (i.e. 30) answered them. Post-questionnaire discussions with each association's participants were fruitful and generated even more aspects since research is dynamic.

3.   Main research findings and evidence

Having analysed the answers received from the three previous films we audio described and audio subtitled under the same project, the feedback for the current film screening was positive overall, while the audience unanimously underlined the improvements made in total, confirming also here their responses on many of the aspects previously investigated (among others, significance of concrete adjectives, voice delivery, importance of embedding touch, emphasis on synchronisation). The screening process consisted of three sections and took part in the three aforementioned associations of the blind in Greece. After a short presentation of the project, a pre-screening touch tour took place. The adult participants had the opportunity to touch one-by-one the tactile material of the film, and specifically four of the puppets, the basic set and some props of its props. Then, the film was screened with audio description and audio subtitles in Greek to the audience. It is noted that two versions of voice delivery were screened for comparison purposes. In particular, the AD script was at first screened with the voice of a professional actress and then with the voice of a neutral female voice. Both voices had received good feedback to the previous films we conducted under our wider project. AST were voiced by a professional actor to both versions and screenings. His voice had received a positive feedback of 91% in our previous reception studies. Overall, all voices used to record the AD script and the AST were human voices, and not synthetic ones, based on results derived from a pilot study carried out with members of the District Union of Western Greece in Patras in the initial phase of our project that suggested naturalness since films are about enjoyment and not just reading text. This is also underlined in Fryer (2016, 93) who cite Fryer and Freeman (2014, 99), noting that "comparing text-to-speech delivery with delivery by a human voice, only human voice AD positively enhanced presence and emotion elicitation. This suggests prosody is a critical element of AD content". After the screenings, questionnaires were read and round-table discussions followed.

In the framework of the pre-screening touch tour, the participants, prior to the questionnaires, commented that they found interesting that the original material was sent solely for the purposes of the screening. Even if not all participants found this experience useful for themselves, they agreed that, apart from hearing, direct touch is the best way to explore an object. It arose from the questionnaires that 80% of the audience found that this approach added information to their overall experience, especially in such a short film with limited running time and much visual information. That way, the over-reliance of a single medium to convey meaning and details was reduced, and audience came closer to the original material and puppet animation as a film medium. Interestingly enough, we observed that the time each participant devoted to touch the relevant material was different and had to do with their needs and attention to detail. 20% underlined that it was not useful given the fact that the AD was sufficient and there was no need to touch the material to have access to the film. From that percentage,

especially participants who had partial sight loss or those who had acquired a visual impairment in the course of their lives replied that hearing the audio description was enough for them to imagine the visual information and enjoy the film. In particular, they placed emphasis on the information load, voice delivery and synchronisation rather than the tactile experience. This was not the case for congenitally blind participants of the above percentage who responded that they needed the pre-screening touch tour to feel the original set, props and protagonists (puppets), since they received further details and they could become involved in the film experience in an additional way, apart from hearing. The educational and creative aspect that such an approach could have to children (or even adults) was another parameter set by the participants.

From the linguistic perspective, the AD script to both versions was the same. To the question how they assessed the use of adjectives and colours, all participants stressed the importance that specific adjectives had in this film. In particular, they marked this detail from useful to very useful according to Likert scale. As also Snyder (2008, 41) puts it, "specificity creates images in the mind's eye to a far greater degree than a general reference". Besides, precision and detail can be expressed by the use of colourful adjectives and adverbs or adverbial phrases (Remael, Reviers and Vercauteren 2014). In any case, "seem to expand and elaborate the information presented" (Biber et al. 1999, 37). Moreover, as it is mentioned above, *Negative Space* placed emphasis on the story with visual metaphor and subtext. In this regard, a simile was also used when the directors animated the waves of clothes. To the question if they found the simile useful and why, all participants (i.e. 30) replied as to all questions asked. The audience unanimously agreed with its use, since it stimulated their imagination in combination with the sound effect being present at that scene. Autumnal colours and clothing alternate with blue wasted spaces were also described, creating – as underlined – a warm atmosphere. As also Bram Meindersma, composer and sound designer of *Negative Space* has stated in an interview, "the film has a strong coherence between the spoken word and the overall sound" (Stop Motion Geek 2018). Given that quality audio description should not be a running commentary, we didn't fill in every pause to as to leave room for imagination and respect the silence especially in the last scene, when "it turns into true silence in the end-scene around the 'pay-off' of the poem" (Meindersma, Stop Motion Geek 2018). It is reminded that the directors restructured the poem by Ron Koertge cinematically. The audio description, the pauses and the silent breath that the main character takes before uttering the final line "Look at all that wasted space" engaged the audience.

Apart from the language choices that appeared to convey a clear and evocative sense of the images and film as a whole, paralinguistic aspects are also crucial, since "stress or emphasis is the basis of rhythmic structure in a language" (Fryer 2016, 90) and it "is fundamental to meaning making" (Fryer 2016, 90). The comparative study showed that 77% of the audience (i.e. 23 participants) preferred the voice of the professional actress, due to

her clear voice, versatility, articulation and clarity. 23% (i.e. 7 participants) preferred the voice delivery by the female voice with no acting background since they found it more natural and 'every-day'. In agreement with Snyder's statement (2008), voice should match the pace and volume of the material. Thus, AD needs to be weaved among sounds of the film. As Fryer (2016, 123) puts it, "by giving the describer control over voicing the subtitles, there is a better opportunity to weave them into the AD more effectively by condensing or summarising the subtitled words and integrating them into the description, rather than simply reading them out verbatim". The voice selected for the AST in the current film (*Negative Space*) was the one of a professional actor, the voice of whom was acceptable by 91% from the participants to the three previous films of our project. In this case, his voice was acceptable but not totally preferred by the audience, answering that they would like a child to voice the subtitles. However, it is underlined that the protagonist was a child that grew up and was narrating his relationship with his father. In other words, the original voice was mature and not childish. To avoid confusion, we clarified that to the audience who was given the opportunity to hear the original voice to compare the voices and express their opinion on whether they would like the AST to be voiced by a voice close to the original one or not, receiving the answer that the first option would be ideal, but, since it is not possible, then the closer the AST voice to the original the better, paying attention to articulation, segmentation, pace and pitch to suit the scenes.

Last but not least, synchronisation and mixing were also important, since we should respect the original sound effects and silence in the film. In the question on whether the AD should be voiced with a dubbing (voicing replaces the original voice) or a voice-over effect (voicing starts sometime before or after the original voice), even though many of the participants did not bother themselves hearing both the beginning of the original voice at a lower volume, because that way they knew that the film was foreign, some would prefer an AD with a dubbing effect to reduce the possibility of potential distractions. In any case, AD should not overlap with the original dialogue and AST, and all participants (i.e. 30) agreed that the original voice should be much lower – when heard – than the AST voice so as not to interfere with it. Technical aspects have also to do with the quality in microphone, recording, studio, sound mixing and editing programme, and, of course, with the screening conditions on spot.

4.   Conclusion

"Unlike subtitling, dubbing or voice-over, AD does not come with a pre-existing text that needs translating from one language to another" (Fryer 2016, 3). As an emergent modality of audiovisual localisation (Braun and Orero 2010), audio description and audio subtitling provide access to foreign audiovisual content for blind and visually impaired people. This enabling service could benefit not only those who have partial or complete sight loss, but also the elderly, people with concentration difficulties, or

even persons who prefer to receive information by auditory means or enjoy an audiovisual material not by watching at it. Using words that are descriptive, succinct, vivid and imaginative (Snyder 2014), one can 'see' a film just by hearing. However, it has been found out that this may also happen by touching original material or replicas since the audience is able to receive further details that may be difficult to be described in the film due to time constraints. Interestingly enough, the original sound and silence should be respected because they do convey meaning and feelings and can engage the audience. Even in the case of short films, with much visual information but limited running time, it arose from the reception study that prioritisation of description, carefully selected words and concrete adjectives or similes, in combination with proper technical equipment, synchronisation, editing, mixing and voice delivery could lead to the optimal result. It is noted that a blind or visually impaired person can have a consultancy role when audio describing and audio subtitling a foreign film, providing invaluable insights and feedback for further improvements. There is no doubt, though, that research is dynamic and not static; thus, there is a need to conduct more reception studies, researching sub-issues that need to be addressed among larger samples of target viewers not only in Greece but everywhere. Besides, such a topic is about accessibility and inclusion, but from a wider perspective, potentially a multi-sensory approach may also have an impact on education and enjoyment on every single person.

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