SUBTITLES FOR THE DEAF AND HARD OF HEARING: IMMERSION THROUGH CREATIVE LANGUAGE

[the Stranger Things case]

Author: Olga Garrido

Tutor: Estel·la Oncins

[ABSTRACT]

The objective of this study is to explore the linguistic characteristics of Subtitles for the Deaf and Hard of Hearing (SDH) with a focus on its creativity. Specifically, the study aims to ascertain how the use of linguistic creativity in the description of music and sound effects affects enjoyment. To accomplish this objective, the ensemble of all sound and music descriptors from the final episode of the Netflix show *Stranger Things*, "The Piggyback", were classified based on Tsaousi's taxonomy according to their exegetic, narrative, contextual, and emotive functions. This analysis aims to identify possible patterns that could establish a relationship between creative description and immersion while taking into account the feedback provided by the audience through social media and the expectations of the new public. The ultimate objective of this research is to approach SDH from a new angle by exploring the possibilities of linguistic creativity and demonstrating how they result in a more immersive and enjoyable experience.

El objetivo de este estudio es explorar las características lingüísticas de los Subtítulos para Personas Sordas y con Discapacidad Auditiva (SPS), poniendo un especial enfoque en su creatividad. En concreto, buscamos determinar cómo la creatividad lingüística de los SPS que describen música y efectos de sonido puede afectar la experiencia de disfrute. Para lograr este propósito, hemos clasificado los SPS de los efectos de sonido y las músicas del último episodio de la serie de Netflix *Stranger Things*, titulado "The Piggyback", según la taxonomía propuesta por Tsaousi (2015), teniendo en cuenta su función exegética, narrativa, contextual y emotiva. Con este análisis, pretendemos identificar patrones que puedan establecer una relación entre la descripción creativa y la inmersión, teniendo en cuenta los comentarios del público en las redes sociales y las expectativas de las nuevas audiencias. En última instancia, nuestro objetivo final es abordar los SPS desde una nueva perspectiva, explorando sus posibilidades creativas a nivel lingüístico y demostrando cómo ello se traduce en un mayor disfrute y una experiencia más inmersiva.

L'objectiu d'aquest estudi és explorar les característiques lingüístiques dels Subtítols per a Persones Sordes i amb Discapacitat Auditiva (SPS), posant un especial èmfasi en la seva creativitat. Concretament, busquem determinar com la creativitat lingüística dels SPS que descriuen música i efectes de so pot afectar l'experiència de gaudi. Per aconseguir aquest propòsit, hem classificat els SPS dels efectes de so i la música del darrer episodi de la sèrie de Netflix *Stranger Things*, titulat "The Piggyback", segons la taxonomia proposada per Tsaousi (2015), tenint en compte la seva funció exegètica, narrativa, contextual i emotiva. Amb aquest anàlisi, pretenem identificar patrons que puguin establir una relació entre la descripció creativa i la immersió, tenint en compte els comentaris del públic a les xarxes socials i les expectatives de les noves audiències. En última instància, el nostre objectiu final és abordar els SPS des d'una nova perspectiva, explorant les seves possibilitats creatives a nivell lingüístic i demostrant com això es tradueix en un major gaudi i una experiència més immersiva.

[TABLE OF CONTENTS]

[LIST OF FIGURES AND TABLES]

[INTRODUCTION]

Subtitles for the Deaf and Hard of Hearing (SDH) is a growing area of research, with a significant amount of literature already available on the subject. Since Gottlieb's (1992) article, which proposed subtitling as a new university discipline, a range of publications has explored the various aspects of SDH, including its types, effects on viewers, legal and policy frameworks, and linguistic and audiovisual aspects.

The study of the creative potential in SDH from a linguistic point of view will be the aim of this research. Linguistic creativity is an important aspect of research in this field as it can help to improve the quality and effectiveness of SDH subtitling. Oftentimes, SDH creation involves more than simply rendering sound into written form; it requires an understanding of the complexities of sound design and how meaning is conveyed through linguistic and paralinguistic features. In many cases, it requires subtitlers to be creative in their use of language to ensure that the intended meaning is conveyed accurately to the deaf and hard of hearing viewers.

SDH that are linguistically creative, well-crafted, and accurately convey the intended meaning can significantly improve the viewing experience. Furthermore, linguistic creativity can help to make content more engaging and accessible to a wider audience, improving the viewer's understanding and enjoyment of the content.

The study of linguistic creativity in SDH can also shed light on the role of culture and context in language use, as the use of creative language may be influenced by factors such as the target audience's cultural background or the type of content being subtitled. By exploring these factors, researchers can gain a deeper understanding of how language is used in SDH and how meaning is conveyed through language use. As such, it is a valuable area for further research in the field of accessibility and media.

[LITERATURE REVIEW]

Legal and: General Overview

The provision of SDH is becoming an important aspect of legal and policy
frameworks related to accessibility and media. In many countries, there are legal
requirements for broadcasters, cinemas, and other media providers to ensure that
their content is accessible to people with disabilities. These legal frameworks often
include provisions for SDH, as it is a vital means of ensuring that Deaf and Hard of
hearing individuals can fully access and enjoy audiovisual content.

At an international level, one of the key legal frameworks for SDH is the United
Nations Convention on the Rights of Persons with Disabilities (CRPD)[1], which was
adopted in 2006. The CRPD is unique in that it explicitly recognizes disability as a
human rights issue and sets out specific measures for ensuring the full and equal
participation of persons with disabilities in society. Among its principles, the treaty
recognizes the right of people with disabilities to access information and
communication, including technologies and systems (Zárate, 2021). This includes
the right to access media content, which can be achieved through the provision of
SDH. Over 185 countries have ratified the treaty, which has led to the development
of specific legal frameworks that ensure the provision of SDH for audiovisual
content.

---

[1] United Nations. (2006). "Convention on the Rights of Persons with Disabilities." Treaty Series 2515,
(December), 3. Retrieved from:
https://treaties.un.org/pages/ViewDetails.aspx?chapter=4&clang=_en&mtdsg_no=IV-15&src=IND

In the United States, the Americans with Disabilities Act (ADA)[1] passed in 1990 required broadcasters to provide closed captioning for certain types of content. It was followed by the Telecommunications Act of 1996[2], which required television broadcast stations to include closed captions in nearly all English-language programming by 2006.

But while analog television was providing captions for most of their programming, the implementation of the service for online videos was a slow process (Butler, 2019). It wasn't until 2010, when the Twenty-First Century Communications and Video Accessibility Act (CVAA)[3] was enacted, that television networks were required to provide captions for the context distributed online.

In the European Union, the Audiovisual Media Services Directive (AVMSD)[4] is responsible for coordinating national legislations related to all forms of audiovisual media. Initially adopted in 2010, the Directive underwent a significant revision in 2018, legally obligating Member States to ensure that public and commercial TV channels, as well as on-demand and streaming platforms, comply with accessibility measures. Similarly, the European Accessibility Act (EAA)[5], was designed to create accessibility obligations for television products and services in 2019.

---

[1] Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 (1990). https://www.ada.gov/pubs/adastatute08.htm

[2] Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. Retrieved from https://transition.fcc.gov/Reports/tcom1996.pdf

[3] Twenty-First Century Communications and Video Accessibility Act of 2010. Retrieved from https://www.fcc.gov/general/twenty-first-century-communications-and-video-accessibility-act-0

[4] Audiovisual Media Services Directive. (2010). Retrieved from https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:095:0001:0024:en:PDF

[5] The European Accessibility Act (Directive 2019/882) Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0882

In Spain, SDH was launched in September 1990, following the example set by the United Kingdom thanks to the use of teletext technology. It was first introduced at a regional level on TV3 (Televisió de Catalunya) and later expanded to a national level on TVE (Televisión Española). Other television networks across the country gradually embraced and offered this service to their viewers. This milestone marked a significant step in promoting accessibility and inclusivity within the Spanish television landscape (Díaz-Cintas, 2010).

The switchover to digital was completed in 2010. By then, the UNE 153010:2003[1] norm issued by AENOR in 2003 had become obsolete considering it was intended for analog television. On the other hand, the formal differences from the Spanish standard and practices compared to other European countries also reinforced the need to update the Spanish norm (Arnáiz-Uzquiza, 2012). In 2012, the new UNE 153010:2012[2] norm was published, becoming the current Spanish standard.

The recent approval of the Spanish law on audiovisual communication, Ley General de Comunicación Audiovisual (LGCA)[3] in July of 2022, represents a legal framework that advances the principles of universal accessibility for individuals with disabilities. It expands the scope of accessible content to encompass entities that were not previously subject to these requirements, including on-demand television and streaming platforms. In this sense, the LGCA requires on-demand service providers to develop accessibility plans and caption a minimum of 30% of their content, including the most popular programs, from the start of the service.

---

[1] AENOR. (2003). UNE 153010:2003 Subtitulado para personas sordas y personas con discapacidad auditiva. Subtitulado a través del teletexto.
Retrieved from https://tienda.aenor.com/norma-une-153010-2012-n0029761

[2] AENOR. (2012). UNE 153010:2012 Subtitulado para personas sordas y personas con discapacidad auditiva.
Retrieved from https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma?c=N0049426

[3] Ley 13/2022, de 7 de julio, General de Comunicación Audiovisual. Publicado en: «BOE» núm. 163, de 08/07/2022.
Retrieved from https://www.boe.es/eli/es/l/2022/07/07/13/con

Industry Guidelines: Netflix

Norms have played an important role in guiding subtitling practices for television, developing organically over time, based on technological advancements and viewer needs. From national norms established by public service television providers, subtitling norms have become increasingly international and are now moving towards a more global standard in the era of streaming. The growth of video-on-demand services has caused significant changes to subtitling norms, resulting in a more global approach to content creation and dissemination (Pedersen, 2018).

In 2011, the National Association of the Deaf (NAD) filed a lawsuit against Netflix, alleging that the company was violating the Americans with Disabilities Act (ADA) by not providing adequate closed captioning for its streaming video content[1]. The case was closely watched by the Deaf and Hard of hearing community, as well as by businesses and organizations that provide streaming video content, as the outcome had the potential to set a precedent to require companies to provide closed captioning and other accessibility features for their digital content. Under the terms of the settlement reached, Netflix agreed to provide closed captions for 100% of its streaming video content by 2014. Soon, other streaming companies such as Apple, Amazon, and Hulu followed. The settlement was a significant victory for the Deaf and Hard of hearing community as it demonstrated the importance of accessibility as a fundamental right for people with disabilities.

In 2014, Netflix published its first set of guidelines on SDH for its original content. Since then, the company has updated its guidelines several times to ensure that they are in line with evolving accessibility standards and best practices and has been at the forefront of providing accessible content to viewers with disabilities.

---

[1] National Association of the Deaf v. Netflix (2011).
Retrieved from https://dredf.org/legal-advocacy/nad-v-netflix/complaint-for-declaratory-and-injunctive-relief/

Regarding its content, Netflix's SDH guidelines emphasize the accurate representation of spoken dialogue, sound effects, and other relevant audio information. They also highlight proper timing and synchronization with on-screen action to ensure viewers can comprehend the storyline effectively. In addition to these technical requirements, the guidelines also include recommendations for style and formatting. For example, the use of brackets for descriptors, including those for sound effects and music.

To ensure compliance with its guidelines, Netflix works closely with content creators, captioning vendors, and other partners. The company also regularly tests its SDH with focus groups and uses viewer feedback to improve the quality and accessibility of its content. The feedback also helps to update the guidelines and is recorded in a change log.

In summary, legal and policy frameworks for SDH have been an important aspect of ensuring accessibility and inclusion for deaf and hard of hearing individuals. Legal frameworks, as well as industry-specific guidelines and standards, provide guidance and requirements for the provision of SDH. However, compared to the national norms established by public service television providers in the 1990s, subtitling norms have become increasingly international and are now moving towards a one-size-fits-all system in the era of streaming (Pedersen, 2018).

New Audiences

The field of Accessibility Studies has undergone a significant transformation in recent years, with the concept of accessibility extending beyond physical barriers. Greco's (2018) concept of "the three shifts of accessibility" emphasizes the need for a universal, user-centered, and proactive approach that prioritizes accessibility for all users. Agulló, Matamala, and Orero (2018) also propose a new approach to user testing in Media Accessibility (MA), shifting from a disability-based model to a capability-based one. Rather than solely focusing on the sensory disabilities of the intended audience, they emphasize the importance of considering other key factors, such as technological capabilities, which may have a determining impact on the results.

Younger generations are changing the consumer landscape. As shown in a recent study conducted in Great Britain, users aged 18-25 are almost four times more likely to use subtitles all or part of the time, despite having fewer hearing problems than older people (Stagetext/Sapio Research, 2021)[1].

Age	Use subtitles some or all of the time watching TV on any device	Deaf, deafened or hard of hearing
18-24	80%	10%
26-35	64%	15%
36-45	55%	15%
46-55	37%	14%
56-75	23%	18%

Source: Stagetext/Sapio Research

Table 1. *Distribution Of Subtitle Use Watching Tv On Any Device By Age Bracket In Great Britain*
(Source: BBC, 2021, November 15, https://www.bbc.com/news/entertainment-arts-59259964)

---

[1] Stagetext. (2021). This data was collected by Sapio Research on behalf of Stagetext. Sapio Research interviewed 2,003 people in October 2021 with the results weighted to be representative of the GB general population. Retrieved from:
https://www.stagetext.org/news/yougov-survey-supports-stagetexts-findings/

Another study conducted in the United States in 2022 shows the increasing importance and benefits of using subtitles amongst younger generations, not just for accessibility purposes but also for language learning and comprehension (Preply, 2022) [1]. While 50% of respondents indicated that they watch TV with subtitles most of the time, Gen Z members (born 1997 - 2012) are much more likely to be frequent users of subtitles (70%). Millennials (born 1981 - 1996) are also more likely to use this feature (53%) compared to older generations.

The main reason for using subtitles is to improve understanding of the dialogue (75%), accents (61%), or as a means to hold their attention on the screen (68%). Over half of the respondents (57%) claimed they watch online content publicly, particularly the Gen Z generation (74%).
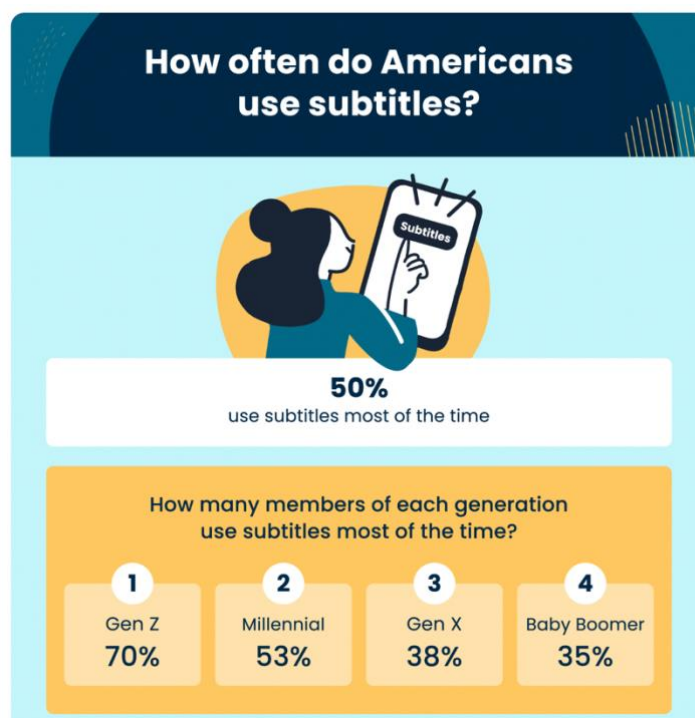
Figure 1. *Distribution of Subtitle Use Watching TV by Generation In America*
(Source: Preply, 2022, Jun 17, https://preply.com/en/blog/americas-subtitles-use/)

---

[1] Preply. (2022). Survey conducted by Preply in May 2022 among 1,265 Americans on their use and opinions of subtitles in entertainment. Retrieved from:
https://preply.com/en/blog/americas-subtitles-use/

The increasing tendency amongst young people to watch videos with subtitles on social media, the success of non-English shows like *Squid Game*, or subtitled films like the South Korean four-time Oscar winner *Parasite* suggest that subtitles are no longer seen as an extra effort, but are rather reshaping the viewing experience for Deaf, Hard of hearing, and hearing viewers (Butler 2019), and becoming a creative medium in themselves.

(Visual) Creativity in SDH

While subtitling for the Deaf and Hard of hearing is often viewed as a technical and straightforward process, it is a fact that the creative decisions taken can impact the overall quality of the content and make it more accessible and engaging for the audience.

In recent years, scholars and practitioners such as Zárate (2021), Pablo Romero-Fresco (2021a & 2021b), Frederic Chaume (2022), and Sean Zdenek (2015 & 2018) have explored the concept of creativity in MA by proposing the various forms that can be employed in the subtitling process.

When creating accessible content for Deaf and Hard of hearing audiences, Zárate (2021) proposes an inclusive approach. In terms of creative techniques, she suggests the use of visual aids, such as color-coding to match a character's predominant color, the use of different fonts or colors to highlight words, or even symbols or icons in an attempt to render the captions less text-based and more accessible and appealing, especially for young audiences.

Meanwhile, Romero-Fresco (2013 & 2019) proposes an alternative approach by integrating accessibility into the filmmaking process, from its inception rather than as an afterthought, in what he calls 'accessible filmmaking'. According to the author, a closer collaboration between filmmakers and translators/media access experts would ensure an enhanced cinematic experience for all audiences.

For that purpose, he suggests several strategies and techniques, including using different colors and sizes, movement, and onomatopoeic subtitles to convey additional information, such as the tone of voice, the mood of a song, or an emotional feeling.

In a recent article, the author discusses the concept of Creative Media Accessibility (CMA) as a response to Greco's (2018) shift from a maker-centered to a user-centered approach and points out its attempt to become an artistic contribution in its own right (Romero-Fresco, 2021a). He highlights the work of emerging artists who use MA as a source of creativity, such as Christine Sun Kim or Liza Sylvestre, who produce captions for films that do not account for the dialogue on screen, but rather for their experience of exclusion from audiovisual media. This creative approach to captioning goes beyond the visual aspect of SDH and will be explored in detail in the following section.

Romero-Fresco and Chaume (2022) describe Creative Media Accessibility as those practices that go beyond merely providing access to film users. Instead, it aims to make an artistic contribution in its own capacity and to enhance the user experience through more creative and imaginative means. It is an alternative approach to traditional MA that questions conventional practices and that can be rooted in a wider fight for inclusion and diversity. Consequently, CMA can serve as a political instrument to advocate for the users' right to complete participation in the arts and society.

On a similar note, Zdenek (2015) proposes a series of experiments with innovative forms of audiovisual accessibility through enhanced captioning (also referred to as kinetic, embodied, integral, dynamic, and animated captioning). Enhanced captions, rather than being treated as mere additions or afterthoughts, are integrated as integral components of the creative text itself. They coexist with traditional captions and offer greater flexibility and options for users.

According to the author, current captioning technology and guidelines lack innovation and fail to keep pace with advancements in entertainment and computer technology. Rather than squeezing captions into pre-existing spaces, the design of film spaces should be reimagined to accommodate captioning.

Furthermore, creative captioning is seen as a potential solution for addressing specific challenges in captioning, such as distinguishing multiple speakers in the same scene, conveying sonic dimensionality, clarifying sustained or repetitive sounds, and reinforcing the meaning of sound effects, ambient sounds, and music.

Zdenek calls for a reassessment of current captioning practices and a push for greater complexity and experimentation. Drawing on crip theory, which challenges and questions normative assumptions, the author suggests that adopting a radical edge in captioning can help identify problems, develop new assumptions and practices, and integrate captioning more seamlessly into video productions. By doing so, enhanced captions prompt a critical examination of the complex relationships between programs and captions, as well as the roles of producers and captioners. The ultimate goal is to bridge these gaps and foster closer collaboration between content creators and those responsible for captioning.

Linguistic Creativity in SDH

In recent years, a group of artists has adopted a more proactive approach towards captioning, actively seeking innovative ways to draw attention to and rectify its limitations and deficiencies when used in popular culture and artistic contexts. Instead of merely conveying information, they transform captioning into a multi-faceted and creative platform for critical, poetic, and humorous interventions, exploring its aesthetic value.

One of these artists is Christine Sun Kim, an American-born, Berlin-based Deaf artist who uses sound and captions in order to challenge and deconstruct the dominant understanding of sound as an auditory experience. Her pieces explore the social, cultural, and political implications of sound and how it shapes our identities and relationships, advocating for a more inclusive and diverse understanding of sound that takes into account the experiences of Deaf individuals. Her work has been exhibited in major cultural institutions internationally, including the Museum of Modern Art (MoMA) and the Whitney Biennial. In her short film "Closer Captions" (2020), Kim starts by explaining her personal connection to closed captions and ultimately concludes: "They suck."

Figure 2. *Still from "[Closer Captions]" by Christine Sun Kim*
(Source: Artist Christine Sun Kim Rewrites Closed Captions. Retrieved from
https://www.youtube.com/watch?v=tfe479ql8hg&ab_channel=pop-upmagazine)

She then proposes what closed captions could be in a video featuring original footage she captioned herself, reclaiming her (Deaf) space in the captioning process and turning the normally hearing-centric experience of producing captions into a deaf-centric one (Romero-Fresco, 2021a).

Figure 3. *Still from "[Closer Captions]" By Christine Sun Kim*
(Source: Artist Christine Sun Kim Rewrites Closed Captions. Retrieved from
https://www.youtube.com/watch?v=tfe479ql8hg&ab_channel=pop-upmagazine)

The product of Kim's creativity and understanding of sound depiction transforms her captions into a poetic symphony.
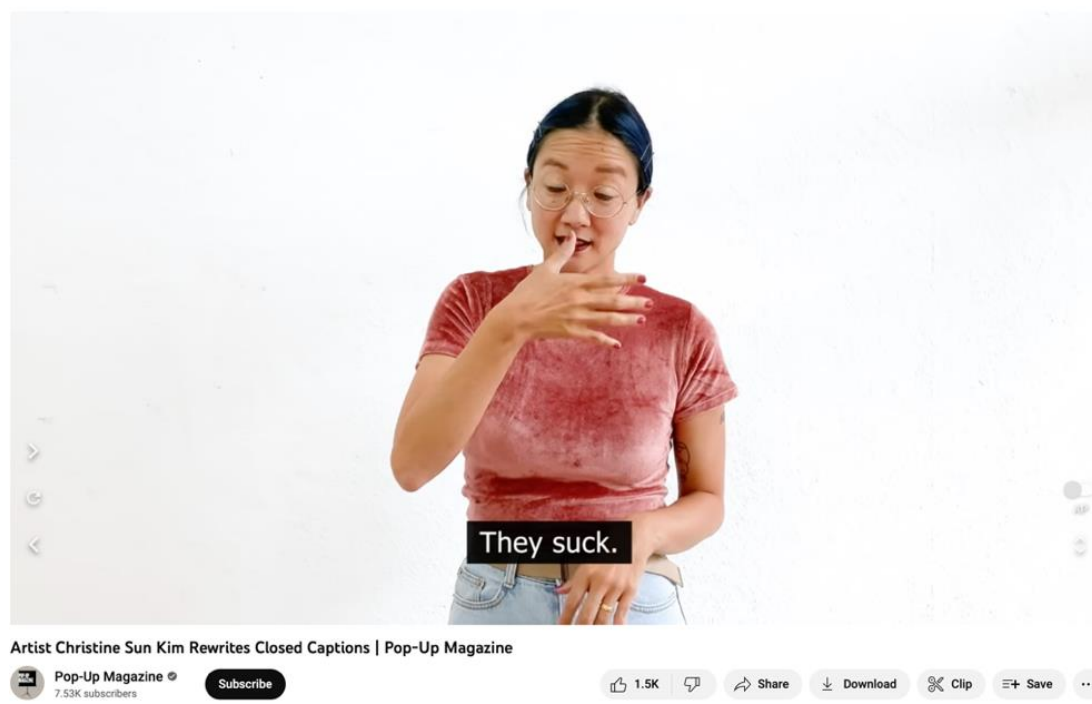

Figure 4. *Still from "[Closer Captions]" By Christine Sun Kim*
(Source: Artist Christine Sun Kim Rewrites Closed Captions. Retrieved from
https://www.youtube.com/watch?v=tfe479ql8hg&ab_channel=pop-upmagazine)

Kim also co-curated "Activating Captions" (2021)[1], an exhibition that combines an online platform and physical window display presented by ARGOS, an audiovisual arts center based in Brussels. This showcase of caption culture explores the convergence of audiovisual media and written languages, challenging stigmatization and advocating for individuals who rely on captions. The exhibition features the works of artists such as Liza Sylvestre and Shannon Finnegan, who use multimedia and site interventions as a medium for their captioning experiments.

Liza Sylvestre, *Captioned: Twentieth Century* (2018) (still). Courtesy the artist.

Figure 5. *Still From Liza Sylvestre's "Captioned: Twentieth Century" (2018)*
(Source: Liza Sylvestre's website. Retrieved from https://www.lizasylvestre.com/captioned)

---

[1] "Activating Captions". Location: ARGOS website + ARGOS window display. (06.04.21—08.06.21). Retrieved from https://www.argosarts.org/event/activating-captions
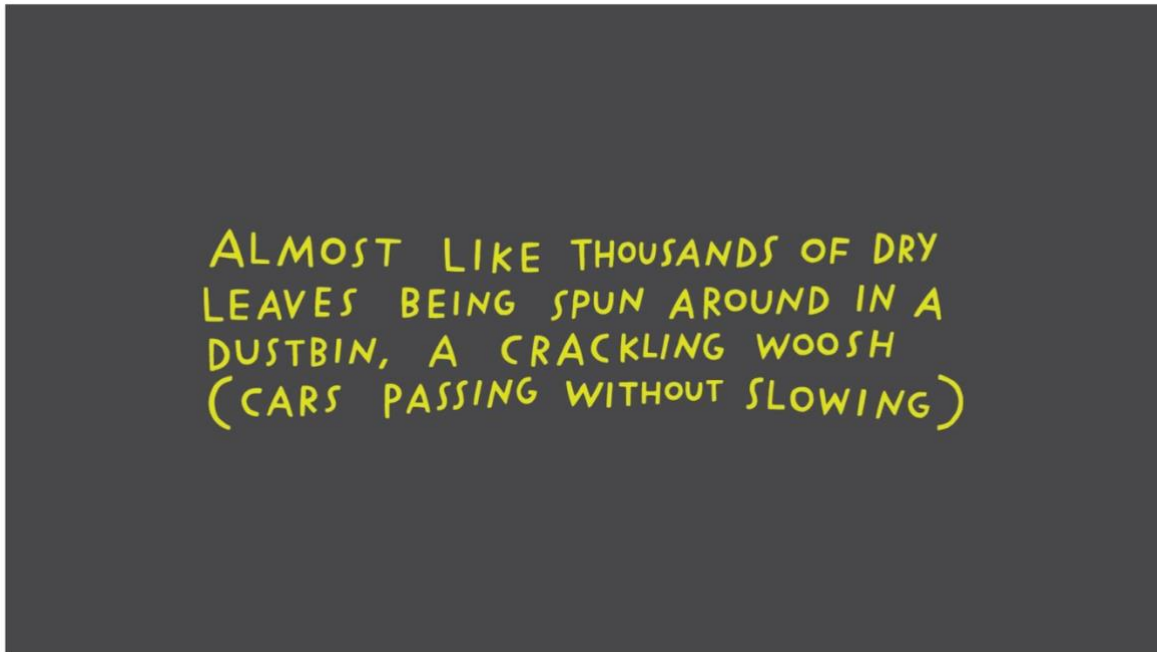
Shannon Finnegan in collaboration with Sven Dehens and Chloe Chignell, *Rue des Commerçants 62 Sounds* (2021). Courtesy the artists.

Figure 6. Rue des Commerçants 62 Sounds (2021) by Shannon Finnegan
(Source: Argos: Activating Captions. Retrieved from
https://ocula.com/magazine/conversations/christine-sun-kim-and-niels-van-tomme/)

Traditionally used to provide accessibility for the Deaf and Hard of hearing, captions undergo a creative reimagining by these artists, highlighting the limitations of this visual tool in the realm of audiovisual culture. Through multi-layered, creative interventions, these artists turn captions into a space for critical, poetic, and humorous exploration. Their transformative approach transcends the conventional view of captions as mere transcriptions, revealing their potential as powerful tools in audiovisual expression.

Is Linguistic Creativity Possible in SDH?
A Revision to the Netflix Guidelines & UNE 153010:2012 Norm

Different organizations and platforms have their specific guidelines and norms for SDH. This section will focus on the English Timed Text Style Guide provided by Netflix[1] and the Spanish UNE 153010:2012 norm[2], specifically their stance on linguistic creativity.

At first glance, it becomes apparent that Netflix's English Timed Text Style Guide (TTSG) offers more comprehensive guidelines compared to the Spanish UNE 153010:2012 norm, which appears to be a broader standard for subtitling in general. Additionally, an important factor to consider is the regular updates made to the Netflix TTSG, with the most recent update occurring in December 2022. As Netflix's content library continues to expand, the style guide for subtitling also evolves, aiming to improve accessibility and provide Deaf and Hard of hearing viewers with an equally immersive viewing experience. Conversely, the UNE 153010:2012 norm was established in 2012 and has remained unchanged since then.

When delving into the specifics, both texts emphasize the need to describe music and sound effects whenever necessary for the understanding of the storyline, provided they are plot pertinent. Both documents also agree that sound effects should only be subtitled if their origin is not obvious and cannot be inferred from the visuals. However, the Netflix TTSG is more thorough when it comes to describing sounds, music, and even moments of silence, as it contributes to the overall emotional impact:

---

[1] Netflix. (2023). English Timed Text Style Guide. Retrieved from https://partnerhelp.netflixstudios.com/hc/en-us/articles/217350977-English-Timed-Text-Style-Guide

[2] AENOR. (2012). UNE 153010: Subtitulado para personas sordas y personas con discapacidad auditiva. Retrieved from https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma?c=N0049426

> "Be detailed and descriptive, use adverbs where appropriate when describing sounds and music, describe voices, speed of speech, the volume of sound. (Netflix, 2023, Section I.16)

> "Subtitle silence if plot pertinent. For example, when plot-pertinent music ends abruptly." (Netflix, 2023, Section I.16.)

One notable difference between the Netflix TTSG and the UNE 153010:2012 norm lies in their formatting guidelines. The Spanish norm requires sound effects to be enclosed in parentheses, with the first letter capitalized, and placed at the top-right of the screen. Examples: (Gritos), (Risas), (Aplausos), (Timbre), (Teléfono). On the contrary, the Netflix TTSG stipulates that sound effects must be enclosed in brackets, written in all lowercase, center justified, and positioned either at the top or bottom of the screen. Examples: [screams], [laughter], [applause], [doorbell], [telephone].

Regarding music description, the UNE 153010:2012 norm proposes three options:

a) Describing the type of music.
b) Conveying the sensation evoked.
c) Identifying the specific piece (title, author, etc.).

And it provides some examples: (Música rock), (Adagio de Albinoni), (Música de terror).

While the guidelines provided by Netflix emphasize the need for objective descriptions when it comes to music, they also suggest including relevant details, such as mood or tone, to enhance the descriptions:

> "Use objective descriptions that describe genre or mood identifiers for atmospheric non-lyrical music, for example [menacing electronic music plays]." (Netflix, 2023, Section I.16.)

Therefore, while there is no explicit prescription for creative language, subtitlers can still exercise some creativity within these parameters. Using expressive and thoughtful descriptions for sounds and music can add depth and enhance the viewing experience for the Deaf and Hard of hearing audience.

As for the UNE 153010 standard, although it provides some guidelines for subtitling sound effects and music, the extent of creativity allowed is not explicitly defined.

In summary, the UNE 153010:2012 norm seems to provide less specific instructions for descriptions, whereas the Netflix examples include additional context and mood-enhancing descriptors, which enables a more creative and expressive approach to describing sound effects and music in SDH. Building on this, one could argue that the level of creativity applied in sound and music descriptions will largely depend on the skills and level of performance of the subtitler. However, it is important to note that these conclusions are based solely on the examples provided by the respective guidelines and while some degree of linguistic creativity may be allowed, the main priority is to ensure that the subtitles remain accurate and accessible.

SDH Parameters: Verbal and Non-Verbal Elements

We have seen how the Netflix guidelines and the UNE 153010:2012 norm suggest different strategies to describe non-verbal elements in SDH. In order to analyze the strategies used in the descriptions of sound effects and music, a taxonomy provides a structured framework for the categorization, identification, and retrieval of possible patterns. Therefore, for this study, the following categorizations were taken into consideration.

In her thesis, Arnáiz-Urquiza (2012) presents a series of minor modifications to the taxonomy developed by Bartoll (2008) for standard subtitling. The original three linguistic, pragmatic, and technical categories are expanded to five: linguistic, pragmatic, aesthetic, technical, and aesthetic/technical.

Alongside these five parameters, the author introduces a new category specifically designed for the SDH practice: the extralinguistic parameter. This new category aims to capture the relevant non-verbal audio elements found in audiovisual content which also need to be transcribed in the SDH subtitles: character identification, paralinguistic information, sound effects, and music.

Based on that, Tsaousi (2015) takes a more specific approach to defining "sound effect" by excluding the paralinguistic elements, as they are inherently connected to the verbal component. Additionally, she also excludes music because, according to the author, it operates as a separate code governed by different rules. However, for the purpose of our study, we will include music as an element to be analyzed alongside sound effects since we aim to consider all non-verbal elements.

Tsaousi argues that the strategies used for sound effect labeling should consider both the nature of the sounds and how they are received by the audience, as this determines the adequacy of SDH renderings. She then proposes a three-level model of analysis that ensures the optimal transmission of sound effects.

Figure 3. Tripartite model of analysis: Schematic overview

WHAT needs to be labelled   **HOW** it shold be labelled

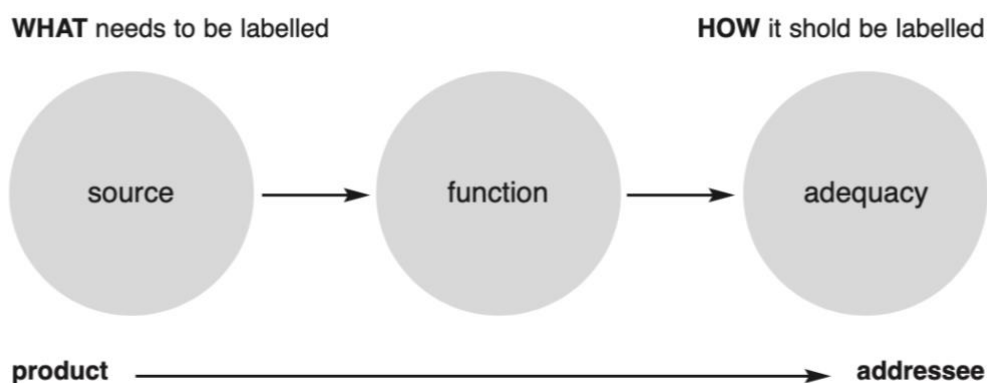source → function → adequacy

product ────────────→ addressee

Figure 7. *Tripartite Model Of Analysis: Schematic Overview*
(Source: Tsaousi, A. (2015). "Making Sound Accessible: The Labeling Of Sound Effects In Subtitling For The Deaf And Hard of hearing." 17. Hermēneus. Revista De Traducción E Interpretación, pp. 248. https://recyt.fecyt.es/index.php/hs/article/view/44973)

Tsaousi's tripartite model is based on three fundamental elements:

1. The source. This level identifies the origin or location of the sound effect within the audiovisual content: diegetic, extra-diegetic, on-screen, and off-screen.

2. The function. Assessing the source leads to an understanding of the function of the sound effect in relation to the narrative. To classify the function of sound effects, the author proposes a taxonomy that groups them based on their roles within the storyline.

3. The adequacy. After evaluating the origin and purpose of the sound effect, we should consider how sound effects should be labeled. An appropriate labeling strategy must ensure the effectiveness of the SDH rendering in conveying the intended meaning and impact of the sound effect.

From a practical standpoint, the author argues the importance to investigate how viewers react to the content and stylistic aspects of the subtitles. Comprehending the subjective and objective reactions of viewers should be the ultimate and vital stage in determining its adequacy.

According to the author, by following this model, researchers and practitioners can make informed decisions about how to appropriately label and convey sound effects in SDH, ensuring that the audience receives a comprehensive and accurate description of the audiovisual content.

Enjoyment and Engagement

In terms of adequacy, Tsaousi (2018) conducted a study aimed to determine whether the level of enjoyment and engagement is conditioned by the use of verbal or nonverbal representations of the sound effects. The significance of her study for our case lies not so much in her results but in its attempt to incorporate the concepts of enjoyment and engagement into the empirical approach to SDH.

In her study, the author highlights the connection between entertainment and enjoyment, emphasizing that enjoyment serves as the primary objective for viewers who seek entertainment through the audiovisual experience. Tsaousi's findings reveal that viewers' emotional involvement is heavily influenced by their level of engagement with the narrative. At the same time, narrative engagement can be triggered by different factors, such as psychological transportation into the narrative world, identification with the characters, or the sense of presence within the narrative space. It is necessary to study these factors if we want accessibility services to enable viewers to enjoy the experience.

As we know, sound effects and music play a vital role in constructing a narrative and have the ability to create vivid mental images. Therefore, the focus on sound and music descriptions deserves equal attention. Considering the distinctive feature of visually transmitting sound in SDH, it is reasonable to assume that the level of viewer engagement is directly influenced by the strategies employed in SDH descriptions. Consequently, it becomes essential to explore these strategies and their impact on the audience. Through such exploration, accessibility services can effectively enhance the audiovisual experience, promoting a more inclusive and engaging environment for viewers.

The Stranger Things Case: [tentacles squelching wetly]

Figure 8. *Still From "Stranger Things" Season 4 (2022)*
(Source: Tudum. Retrieved from https://www.netflix.com/tudum/articles/stranger-things-season-4-captions)

When *Stranger Things*' fourth season was released in May and July 2022, its closed captions quickly became an internet sensation. Viewers from all over the world took to social media platforms like Reddit and Twitter to share their thoughts and reactions. Some of its descriptors became a hallmark and source of memes for the show. And even newspapers such as The Times[1], The Guardian[2], and Vulture[3] dedicated articles to exploring their impact and significance.

---

[1] Hussain, S. (2022, July 14). How Stranger Things made subtitles cool. The Times.
URL: https://www.thetimes.co.uk/article/stranger-things-the-show-that-made-a-star-of-its-subtitler-khklbl2mn?utm_medium=Social&utm_source=Twitter#Echobox=1657807434

[2] Mahdawi, A. (2022; August 3). I thought needing subtitles on TV just meant I was getting old. Turns out it is all the rage among the kids. The Guardian.
URL: https://www.theguardian.com/commentisfree/2022/aug/03/i-thought-needing-subtitles-on-tv-just-meant-i-was-getting-old-turns-out-it-is-all-the-rage-among-the-kids

[3] Salazar, S. (2022, July 8). Wet Writhing and Eldritch Gurgling: A Chat With the Stranger Things Subtitles Team. Vulture.
URL: https://www.vulture.com/2022/07/stranger-things-subtitles-captions-team-interview.html

Below are some examples of comments extracted from various online newspapers and magazines:

> "The subtitles are sublimely descriptive and spot-on, and also a little gross."[1] (Motion Picture Association, 2022)

> "The team behind descriptors such as "tentacles undulating moistly", "wet footsteps squelch" and "unearthly susurration", have said they worked hard to give hearing-impaired audiences a more immersive experience – but they've also added a fun new dimension for everyone else. Which is a good reminder that increasing accessibility is a win for everyone."[2] (Mahdawi, 2022)

> "Why are these subtitles and captions so effective? Because not only are they incredibly descriptive, but they also take their audience and context into account. "[3] (Sharabi, 2022)

The SDH for *Stranger Things* season 4 was written by Jeff Tashige and edited by Karli Witkowska. In an interview featured at Netflix's official site Tudum[4], the team explains their description process, and how they tried to capture the genre and horror elements of the show.

---

[1] Motion Picture Association. The Credits. "Tentacles Squelching Wetly": Meet the "Stranger Things 4" Subtitle Writers. (2022, July 12). Retrieved from https://www.motionpictures.org/2022/07/tentacles-squelching-wetly-meet-the-stranger-things-4-subtitle-writers/

[2] Mahdawi, A. (2022; August 3). I thought needing subtitles on TV just meant I was getting old. Turns out it is all the rage among the kids. The Guardian. Retrieved from https://www.theguardian.com/commentisfree/2022/aug/03/i-thought-needing-subtitles-on-tv-just-meant-i-was-getting-old-turns-out-it-is-all-the-rage-among-the-kids

[3] Sharabi, C. (2022, July 22). How Stranger Things' Subtitles Went Viral. Blend.
Retrieved from https://www.getblend.com/blog/how-stranger-things-subtitles-went-viral/

[4] Bitran, T. (2022, July 8). Meet the Wordsmiths Behind the Genius 'Stranger Things' Season 4 Subtitles. Tudum.
Retrieved from https://www.netflix.com/tudum/articles/stranger-things-season-4-captions

Descriptive subtitles like "tentacles squelching wetly" and "wet squelch" were intentionally used to describe the atmosphere and to evoke the right feelings and emotions. Some words, like "squelch" for example, were inspired in ASMR[*] videos to elicit a visceral response from readers. Others were drawn from Jeff's experience playing Dungeons & Dragons and from science fiction books.

The team emphasizes the importance to consider that closed captions are designed to serve various segments of the audience with different levels of hearing loss. Consequently, it becomes imperative to strike a balance between describing sounds and capturing emotions. They argue that the goal of SDH is to achieve that perfect balance between genre and language choices while remaining aligned with the creative intentions of the sound design. This alignment ensures that such intention is being matched in the accessibility forks for Deaf or Hard of hearing people.

Considering the feedback shared by the Deaf and Hard of hearing community on social media, it becomes evident that they deeply appreciate the level of detail provided by the captions, as it enables them to fully immerse themselves in the show's atmosphere. These are some examples of comments posted on Twitter and the Reddit thread r/deaf[1]:

> "The subtitles are famous for the amount of care and detail that went into describing each sound. Basically, you want to describe any sound that is essential to developing a full understanding of the scene. If the creators included music to communicate that something dangerous is about to happen, for example, a good subtitle writer would include a description of that music." (Kittykittyekatkat) [Reddit]. (2022, July 25).

---

[*] Autonomous Sensory Meridian Response (ASMR)

[1] Kittykittyekatkat. (2022). What is your honest opinion on the English captions in Stranger Things, season 4? Reddit. r/deaf. Retrieved from
https://www.reddit.com/r/deaf/comments/vq0bsg/what_is_your_honest_opinion_on_the_english/

"Captions are more than just dialogue, and Stranger Things made great use of them." (@alosar7) [Twitter]. (2022, July 14).

"As someone with profound hearing loss, it is unheard of to have this level of specifically." (waffle299) [Reddit] (2022, July 2)

"Adjectives and adverbs, no matter how hilarious some people think they are, are usually very helpful for me to understand the mood and tone of a scene, and I appreciate the captions that include descriptions for little sounds that may seem insignificant to some people but help develop characters, settings, and plot." (RoughThatisBuddy) [Reddit]. (2022, July 2).

"as a profound Deaf person and a horror cinema fan since childhood, I really appreciate the descriptive subtitles for sounds! They're fun and feel more inclusive than a typical and boring sound subtitle, eg [scary music plays]. looking forward to #StrangerThings4 volume 2' (@topheravila) [Twitter] (2022, Jun 6)

"the 'colourful' descriptions actually provide a frame of reference." (captainyeezus) [Reddit] (2022, July 3)

"All the wet squelching and so forth adds so much depth to the experience that makes it so much more immersive. I like now knowing that the stuff is wet and squelching. That makes it gross. Thats something that I'd have missed out entirely with old subtitles." (stubkan) [Reddit] (2022, July 3)

"while I make fun of some of the captions (specifically the "writhing wetly" or "flesh squelches", "ominous music plays" type), I do like having them because they do help. The captions help fill in what I don't get to hear, the subtle noises or quiet music/dialogue." (PahzTakesPhotos) [Reddit] (2022, July 3)

"Subtitles are getting good nowadays. Its like poetry, compared to what it used to be years ago. […] Now, it's like an enthusiastic storyteller thats part of the show, giving another rich dimension to the story. All the wet squelching and so forth adds so much depth to the experience that makes it so much more immersive. I like now knowing that the stuff is wet and squelching. That makes it gross. That's something that I'd have missed out entirely with old subtitles." (stubkan) [Reddit]. (2022, July 3).

It goes without saying that the inclusion of intricate details such as the "squelching" and the "shrieking" resonated with both hearing and non-hearing audiences. The impact is evident through the various comments posted on social media:

"Best subtitle ever: [tentacles undulating moistly]" (Lil_MRSA) [Reddit] (2022, July 2)

"I love how the subtitles were practically their own character." (WoodZillaTV) [Reddit] (2022, July 2)

'whoever was in charge of the Stranger Things subtitles, give them a raise' (sharnacious) [Twitter] (2022, July 1)

"The subtitles truly made me enjoy this season even more if that's possible." (dr-snack) [Reddit] (2022, July 2)

"There subtitles are on a different level. A whole character who is everyone's favorite." (blac_sheep90) [Reddit] (2022, July 2)

"…the subtitles writers were doing their job well. The more descriptive the better, for people who are deaf or hard of hearing." (Finnjakefionnacake) [Reddit] (2022, July 2)

"I wish all subtitles were this descriptive and accurate!" (kg2237) [Reddit] (2022, July 2)

"I really enjoyed the subtitles, which is such a weird thing to say haha. My husband and I were always like, ugh so much squelching." (Stormy-Skyes) [Reddit] (2022, July 2)

"They went all out on those subtitles. I have a fairly large vocabulary, but I had to look up some of those words, lol" (romeodread) [Reddit] (2022, July 2)

"I tried to keep count of all the different "adjective + synth music plays" but I was too excited. There must have been 17 different kinds of synth in Vol 2 lmao" (Comfortable_Put_2308) [Reddit] (2022, July 2)

"I love the additional information from the subtitles this season!" (@pianobar77) [Twitter] (2022, July 11)

"This should absolutely be the new gold standard in subtitle creation." (urafishhead) [Reddit] (2022, July 2)

"The subtitles take this show to another level. I feel bad for the people that leave them off." (ObiGodKenobi) [Reddit] (2022, July 2)

"That's just to spook all the deaf people. They've seen the tentacles undulate in prior seasons, but the curveball we throw them when they undulate moistly will surely send a few shivers up their spine." (Impadop) [Reddit] (2022, July 2)

"The subtitles this season were wild and I loved it". (Ramman321) [Reddit] (2022, July 2)

"very descriptive." (Arson_Engineer) [Reddit] (2022, July 2)

"The subs were whack this season" (oxymoronisanoxymoron) [Reddit] (2022, July 2)

"Perfection 👌" (em2477) [Reddit] (2022, July 2)

While the subtitles were meant for the Deaf and Hard of hearing viewers first, the authors enjoyed seeing them appreciated by the wider audience. Some comments were directly addressed to them for their creativity:

"Whoever does the subtitles for this show is my hero." (a-most-peculiar-girl) [Reddit] (2022, July 2)

"Love the descriptions of music and sound effects in the subtitles for #StrangerThings 4. [intricate, macabre music playing] [gate writhing wetly] (@keaneli) [Twitter] (2022, July 2)

"those close captioning people deserve an award" (@jensweeten) [Twitter] (2022, July 11)

"Subtitles guy is horny for adverbs" (HBag)]) [Reddit] (2022, July 2)

"Subtitle guy's adverbs are on point." ([eliminado]) [Reddit] (2022, July 2)

"Flesh bursting was another one that grossed me out but was fantastic. These subtitle folks had their thesaurus READY. And they were going to make sure that anyone with hearing loss was going to be as horrified and grossed out as the rest of us." (_cassquatch) [Reddit] (2022, July 3)

[METHODOLOGY]

This case study aims to explore the creative strategies used to describe sound and music within the English closed captions of the fourth season of the television series *Stranger Things*. For that purpose, the focus will be on analyzing the Subtitles for the Deaf and Hard of Hearing of the last episode, and the season finale, titled "The Piggyback".

The selection of this episode is motivated by two key factors. Firstly, the episode is 150 minutes long, providing a sufficient supply of descriptors necessary to build a robust corpus for this study. Secondly, the episode features many of the captions that have had a bigger impact on the audience and have become viral on the Internet. Through a comprehensive examination of the creative techniques used, we aim to gain insights into the factors contributing to their remarkable success.

Stranger Things

Stranger Things is an American science fiction horror drama series created by the Duffer Brothers. One of Netflix's flagship series, it has been critically acclaimed for its characterization, atmosphere, acting, soundtrack, directing, and writing.

Set in the 1980s, the series centers around the residents of the fictional small town of Hawkins, Indiana, as they are plagued by a hostile alternate dimension known as the "Upside Down" after a nearby human experimentation facility opens a gateway between the Upside Down and the normal world.

The first season was released on Netflix on July 15, 2016. Its second and third seasons followed in October 2017 and July 2019, respectively. The fourth season of *Stranger Things* was released worldwide on the streaming service in two volumes. The first set of seven episodes was released on May 27, 2022, while the second set of two episodes was released on July 1, 2022.

The fourth season of *Stranger Things* takes place in March 1986, eight months after the conclusion of the previous season. Notably, the season follows several plotlines across a range of locations, including Hawkins, California, Nevada, Alaska, and Russia. In the first plotline, a series of mysterious teenage murders begin haunting the town of Hawkins. "The Party" (Mike, Will, Lucas, and Dustin) and their allies identify the killer as a powerful being from the Upside Down, whom they call "Vecna". In the second plotline, Eleven goes with Dr. Brenner and Dr. Owens to a secret facility to help her regain her powers, while Mike, Will, Jonathan, and Argyle try to track her down. The third plotline follows Joyce and Murray's attempts to rescue Hopper from a Soviet prison camp in Kamchatka.

The various plotlines converge in the season finale, "The Piggyback", which premiered on July 1, 2022. It follows the Hawkins group as they enact their plan. Max, Lucas, and Erica go to Creel House for Max to lure Vecna out, while Steve, Nancy, and Robin go to its Upside-Down counterpart to attack him. Dustin and Eddie distract the bats, with Eddie sacrificing himself in the process. Jason enters Creel House and fights Lucas, destroying Max's cassette and headphones, and trapping her with the monster. With no way to reach Hawkins in time, the California group creates an isolation tank for Eleven to enter Max's mind and fight Vecna. Yet, Vecna overwhelms her, revealing to Eleven that he has controlled the Upside Down ever since she sent him there. The fact that Mike professes his love to Eleven gives her the strength to break free from Vecna's control. Unfortunately, Max dies from her injuries.

In the meantime, Hopper, Joyce, and Murray reenter the prison and kill the remaining Demogorgons, weakening Vecna. Steve, Robin, and Nancy set Vecna's physical form ablaze and shoot him, apparently killing him. Eleven uses her powers to restart Max's heartbeat, but the latter's brief death allows Vecna's gates to open and tear through Hawkins, destroying parts of the town. Two days later, the California group arrives in Hawkins, reuniting everyone, while Max remains comatose. As Joyce and Hopper reunite with their children, Will senses that Vecna is still alive. The Upside Down begins invading Hawkins.

Method

To analyze the strategies used to describe music and sound effects in the closed captions of the episode "The Piggyback", first it is necessary to classify them in order to understand their function in a given context. The taxonomy Tsaousi (2015) proposes serves to understand what and how a sound should be labeled to convey its purpose depending on the context. Once the function has been established, the subtitler needs to choose a suitable strategy to fulfill that function and create the same effect. Tsaousi's categorization ultimately aims to suggest adequate sound effect labeling strategies to enhance the viewer's engagement and enjoyment of the audiovisual product.

As the main purpose of this study is to analyze linguistic strategies to create a better experience through closed caption description, Tsaousi's taxonomy will allow us to find a possible correlation between the function of the descriptor, and the strategies used to describe the sound in order to understand its potential impact on the audience.

Exegetic	Narrative	Contextual	Emotive/Aesthetic
Reinforces the meaning of the dialogue — Reinforces the meaning of the image — Creates new meanings — Generates contrasts — Provides additional information — Guides our interpretation	Provides cohesion and coherence in the narrative — Expands the narrative space — Assists plot development — Guides our attention —	Provides contextual information — Contributes to the realism of the contextual whole —	Generates/ reinforces emotions —

Table 2. *Sound-Effect Functions*
(Source: Tsaousi, A. (2015). "Making Sound Accessible: The Labeling Of Sound Effects In Subtitling For The Deaf And Hard of hearing." 17. Hermēneus. Revista De Traducción E Interpretación, pp. 248.
https://recyt.fecyt.es/index.php/hs/article/view/44973)

The author categorizes the functions of sound effects into four main categories - Exegetic, Narrative, Contextual, and Emotive/Aesthetic - along with their respective subcategories, based on their placement within the plot.

The exegetic or interpretative function allows for an initial analysis of the image and is related to the narrative (Tsaousi, 2015). It is divided into six sub-categories:

- Reinforces the meaning of the dialogue.
- Reinforces the meaning of the image.
- Creates new meanings.
- Generates contrasts.
- Provides additional information.
- Guides our interpretation.

The narrative function of a sound is distributed into four sub-categories:

- Provides cohesion and coherence in the narrative.
- Expands the narrative space.
- Assists plot development.
- Guides our attention.

Tsaousi separates the contextual function into two sub-categories:

- Provides contextual information.
- Contributes to the realism of the contextual whole.

And last, but not least, is sound's emotive/aesthetic function. This function only has one subcategory that can also serve as a definition:

- Generates/reinforces emotions.

It is important to acknowledge that while the term "aesthetic" conventionally refers to qualities of beauty, pleasure, or enjoyment, its application in the analysis of content related to the Horror genre needs to be extended to those sounds that serve to accentuate feelings of anxiety or discomfort.

To conduct the classification of music and sound effect descriptors to further analyze their function and labeling strategy, the entire English SDH file from the episode finale of *Stranger Things*, "The Piggyback", was extracted from the video. The subtitles were listed in an Excel sheet and then filtered to create a new list that only included subtitles with closed captions. The resulting list was then cross-checked against the video of the episode with the English closed captioning function activated. Since only captions with music or sound effect descriptors are being considered for the study, all other captions, including character identifiers and vocal sounds made by characters or monsters, were discarded. The resulting list contains 604 music and sound effects descriptors, exclusively.

In the second part of the analysis, each of the 604 descriptors was classified according to their function, following Tsaousi's proposed taxonomy. It is important to note that, given the multiple possibilities of sound and music functionality in a given context, many descriptors may serve more than one function and therefore can be assigned to multiple categories. Consequently, the total number of music and sound effect descriptors extracted from the episode may not align with the sum of all descriptors after classification.

Once the descriptors were classified according to their functionality, a selection of captions was made, considering their significance and popularity among both hearing and non-hearing audiences. The purpose was to analyze the adequacy of the linguistic strategies used and determine the level of immersion and engagement achieved (Tsaousi, 2015).

[RESULTS]

The corpus of this case study comprises 604 music and sound effect descriptors extracted from the last episode of the fourth season of the television series *Stranger Things*, "The Piggyback".

During the viewing of the video with the English captions enabled, the descriptors were classified according to their function into one or more categories following Tsaousi's (2015) taxonomy. The following results were obtained:

EXEGETIC	Total CC	%
Reinforces the Meaning of the Dialogue	0	0.00
Reinforces the Meaning of the Image	140	23.18
Creates New Meanings	49	8.11
Generates Contrasts	3	0.50
Provides Additional Information	67	11.09
Guides Our Interpretation	86	14.24
	345	**57.12**

NARRATIVE	Total CC	%
Provides Coherence in the Narrative	0	0.00
Expands the Narrative Space	72	11.92
Assists Plot Development	52	8.61
Guides Our Attention	91	15.07
	215	**35.60**

CONTEXTUAL	Total CC	%
Provides Contextual Information	159	26.32
Contributes to the Realism of the Whole	29	4.80
	188	**31.13**

EMOTIVE / AESTHETIC	Total CC	%
Generates /Reinforces Emotions	**192**	**31.79**

Table 3. *Distribution of Closed Captions by Function*

As previously mentioned, the same descriptor may appear multiple times resulting in it being counted more than once. It may appear across different sub-categories within the same function, or even across different functions.

At first glance, we can affirm Tsaousi's assertion that the exegetic (57.12%) and narrative (35.6%) functions are the most important as they're directly connected to the development of the plot (Tsaousi, 2015). Nevertheless, it is worth noting that the emotive/aesthetic function is just as significant (31.79%), which comes as no surprise given that the genre of the show is Horror.

This finding, in conjunction with the aforementioned viewer feedback, highlights the significant role emotions play within closed captions and underscores the impact they have on the viewer's overall experience. In the following sections, a more comprehensive examination will be conducted of each function, providing a more detailed analysis of their respective subcategories. This will be supplemented with illustrative examples to determine the adequacy of the descriptions.

Exegetic

The exegetic function of closed captions plays a crucial role in guiding the audience through the storyline. This significance is further emphasized by the fact that 345 descriptors (57.12%) serve this function.

EXEGETIC	Total CC	%
Reinforces the Meaning of the Dialogue	0	0,00
Reinforces the Meaning of the Image	140	23.18
Creates New Meanings	49	8.11
Generates Contrasts	3	0.50
Provides Additional Information	67	11.09
Guides Our Interpretation	86	14.24
	345	57.12%

Table 4. *Total Sum And Percentages Of Closed Captions With Exegetic Function*

Upon closer examination, it becomes evident that a substantial proportion of the aforementioned descriptors serve the specific function of "**Reinforce the Meaning of the Image**" (23.18%). When analyzing specific examples, it is interesting to observe that captions using vivid and sensory language are the most popular. These are a few examples:

[tentacles undulating moistly]

This description utilizes tactile and visual imagery. The tactile element is evoked by the word "moistly," which suggests a damp or wet sensation. The visual element is conveyed by the word "undulating," which paints a mental picture of the tentacles moving in a sinuous and wave-like manner. The words "undulating" and "moistly" function as adverbs enhancing the description of the tentacles and indicating their quality. Such elements of imagery stimulate the viewer's senses by invoking a sense of touch and sight, painting a vivid picture of the tentacles' texture and movement.

[ferocious guitar riff]

This phrase primarily utilizes auditory imagery to describe a specific sound experience. The word "ferocious" intensifies the description, suggesting an intense and aggressive sound produced by the guitar, evoking a sense of power and energy. The use of auditory imagery aims to transport the non-hearing audience into the realm of sound. The non-hearing viewer can almost imagine the piercing and electrifying sound, contributing to a more immersive and visceral experience.
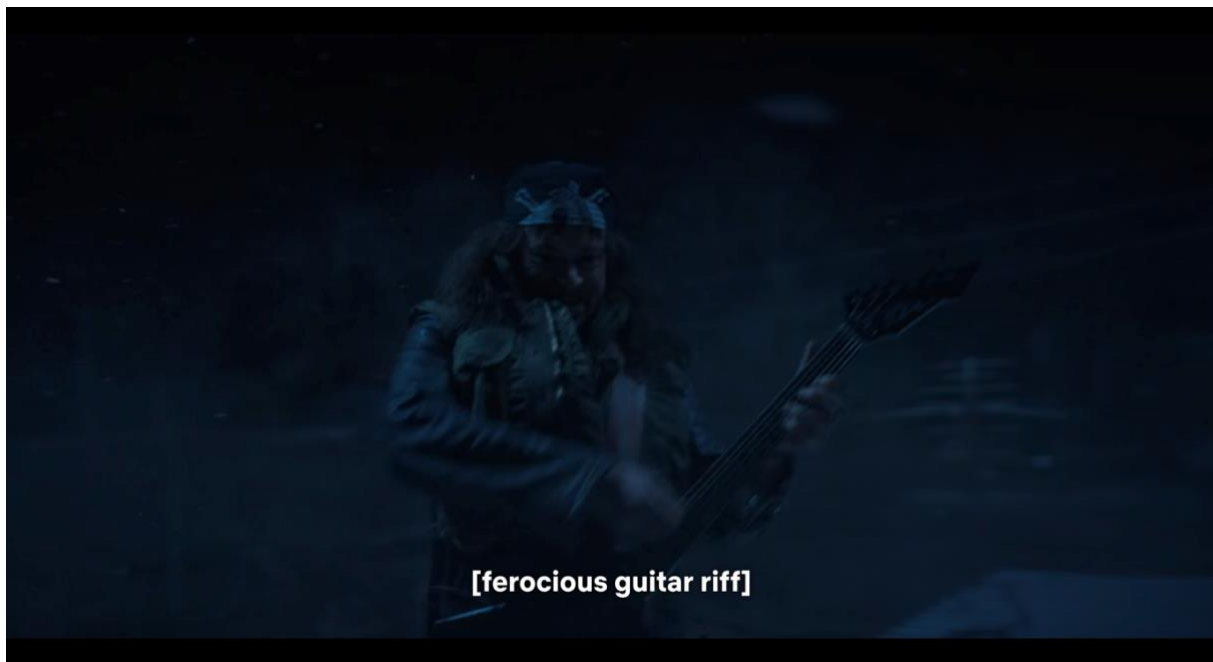
Figure 9. *Still From "Stranger Things" Season 4 (2022)*
(Retrieved from https://www.netflix.com/search?q=stranger%20things&jbv=80057281)

[flesh squelches]

This description uses tactile and auditory imagery. The word "flesh" suggests a
physical sensation related to touch, and it brings to mind its moist, malleable texture.
The verb "squelches" contributes to both tactile and auditory imagery. Tactilely, it
implies a squishy, wet, and possibly unpleasant sensation, as if something is being
compressed or squeezed. Auditory-wise, it depicts a sound characterized by a wet,
suction-like noise, as if something is being stepped on. Together, it involves a
physical interaction with moist and yielding flesh, accompanied by the distinct sound
produced.

If we look at the numbers, the second subcategory within the exegetic function
serves to **"Guide Our Interpretation"** (14.24%). Such captions help us guide our
perception and meaning-making process:

[resolute, determined music plays]

By using descriptive language to convey the emotional tone of the music, the captions guide the viewer's interpretation of the scene by indicating the mindset or attitude of the characters or the overall atmosphere. It helps shape our understanding and emotional response to the events unfolding.

[dramatic stinger]

In the context of an audiovisual experience, the term "stinger" refers to a short, intense musical or sound effect, often used to create a sudden jolt of emotion or to highlight a significant moment. The use of the word "dramatic" further emphasizes the intensity and impact of the stinger, shaping the audience's emotional response at a particular point in the content. This caption prompts the audience to anticipate a significant or climactic event, thus guiding their interpretation.

"Provides Additional Information" (11.09%) is another subcategory that refers to descriptions of audio elements present in the scene, which may not be discernible solely through visual cues. These captions enhance the viewer's comprehension and enable a more inclusive and immersive experience, particularly for individuals with hearing impairments.

[unsettling audio distortion]

This caption is particularly effective among viewers with hearing loss. Without it, they may not be aware of the deliberate manipulation of sound or the intentional use of audio distortion to evoke a sense of unease or discomfort.

The adjective "unsettling" suggests a sense of unease, discomfort, or disturbance, emphasizing the atmosphere or mood that the creators aim to convey in the scene. It suggests that there is something abnormal or unsettling happening, potentially foreshadowing a suspenseful or tense moment.

[yelps, strums out heavy metal chords]

This caption describes audio elements that contribute to the scene's atmosphere and narrative but may not be apparent through visual cues alone. It employs the verb "yelps", which creates an auditory image of sharp, sudden sound, suggesting a sense of surprise or intensity. The word "strums" implies the action of playing a stringed instrument, while "heavy metal chords" conveys the genre's characteristic loud, aggressive, and powerful sound. This combination of words creates a vivid auditory image of the music being played in the scene, which enhances the viewer's comprehension, contributing to a more immersive experience, especially for individuals with hearing impairments.

Moving on to the next subcategory, it becomes apparent that certain descriptors have the capacity to transcend their literal interpretation and convey a deeper message that **"Creates New Meanings"** (8.11%):

[clock ticking]

Symbolically representing the passage of time, the caption enhances the suspense and dramatic effect of the scene by implying that time is running out. For viewers who are Deaf or Hard of hearing, it ensures they are aware of the significance of the sound within the context of the visuals. This caption creates tension and heightens the dramatic impact of the scene, indicating that something significant may happen.

[low, ominous music playing]

This description was also very commented on the internet. It's a good example of how a single caption can be classified into various sub-categories or fulfill different functions. This versatility arises from the fact that it can "Provide Additional information", "Reinforce the Meaning of the Image", "Create New Meanings" or "Guide Our Interpretation", depending on the specific visual context in which it is employed.

The author uses imagery to convey specific details about the music, namely, its low and ominous tone. The word "ominous" is a metaphorical description that immediately sets a tone of foreboding and unease, suggesting something threatening or sinister. Auditory imagery enhances the overall sensory experience, especially for the non-hearing audience, and aids in conveying the intended atmosphere or mood of the scene.

Figure 10. *Still From "Stranger Things" Season 4 (2022)*
(Retrieved from https://www.netflix.com/search?q=stranger%20things&jbv=80057281)

One viewer from the Deaf and Hard of hearing community mentioned how this caption helped them in filling in what they didn't get[1] by watching the visuals alone. For Deaf individuals who rely solely on visual information, the caption bridges the gap by conveying the emotional and atmospheric qualities of the audio component. It ensures a more complete understanding of the scene, enhancing engagement and allowing one to fully experience the intended narrative and dramatic effect of the music.

---

[1] PahzTakesPhotos [Reddit] (2022, July 3)

The following captions were classified under the subcategory **"Generates Contrasts"** (0.50%) based on their manifested contrast with the visuals or the dialogue. The following examples will be analyzed to facilitate a better understanding of this concept.

[music pulses ominously]

On their way to confront Vecna, Steve gives instructions to Dustin and Eddie, "Don't try to be cute or be a hero or something." To which Eddie responds, "Absolutely. I mean, look at us. We are not heroes." This conversation is intended to be light and humorous. Hence, the music and its subsequent caption serve as a deliberate contrast, particularly for the Deaf and Hard of hearing audience. Since they rely primarily on visual cues to comprehend the story, they may miss out on the auditory elements that contribute to the overall atmosphere of the scene.

In this case, the ominous music not only informs the non-hearing viewers that there is ominous music playing but also conveys the emotional weight and impending danger suggested by it. It heightens the contrast between the lighthearted conversation and the building of suspense, creating a more immersive and impactful experience. By juxtaposing the light and humorous dialogue with the description of the ominous music, the caption further emphasizes a shift in tone and creates a heightened sense of anticipation.

This caption was also categorized as a description that "Guides Our Interpretation" because it directs the audience's attention and guides viewers in understanding its narrative implications. Moreover, the placement of the caption within the conversation guides the audience in reevaluating the light and humorous conversation in light of the ominous music, highlighting the fact that there is more to the scene than a simple exchange of words.

Since this analysis focuses solely on subtitles related to music and sound effects, no subtitles have been identified and categorized under the subcategory **"Reinforces the Meaning of the Dialogue"** (0.00%). This subcategory refers to the role of closed captions in providing additional support and clarification for the spoken dialogue present in the audio.

Based on this analysis, it can be deduced that the essential role of captions incorporating exegetic elements plays a vital role in enhancing the viewers' comprehension and interpretation of the visual content. The examples presented underscore the significance of employing suitable rhetorical devices to evoke vivid mental imagery for the Deaf and Hard of hearing audience, emphasizing the importance of adequacy in the captioning practice.

Narrative

The narrative function of closed captions also plays an important role. A total of 215 descriptors (35.6%) fulfill this function in this episode.

NARRATIVE	Total CC	%
Provides Coherence in the Narrative	0	0,00
Expands the Narrative Space	72	11.92
Assists Plot Development	52	8.61
Guides Our Attention	91	15.07
	215	**35.60%**

Table 5. *Total Sum And Percentages Of Closed Captions With Narrative Function*

Out of the total descriptors with the narrative function, almost half of them correspond with the function labeled **"Guides Our Attention"** (15.07%). These descriptors serve to direct our focus toward specific elements within the screen that emit significant and meaningful sounds. They play a crucial role in enhancing our overall comprehension and interpretation of the narrative, enabling us to engage more deeply with the audiovisual experience.

[lights buzzing erratically]

Whenever Eleven uses her powers, the lights around her begin to flicker. In this context, the caption directs our attention toward the fact that Eleven is employing her powers. It serves as an informative signal that alerts the viewers and helps them understand the progression of the narrative.

It is worth noting that this caption fulfills multiple functions and can be classified into various categories. It "Reinforces the Meaning of the Image" (explains why the lights are buzzing); it "Provides Additional Information" (indicates that the buzzing has significance); and "Contributes to the Realism of the Whole" (adds a contextual layer).

[creatures slamming against walls loudly]

In certain instances, such as this one, auditory details may go unnoticed as they occur off-camera. For viewers who are Deaf or Hard of hearing, these captions capture their attention, enabling them to fully engage with the narrative.

Figure 11. *Still From "Stranger Things" Season 4 (2022)*
(Retrieved from https://www.netflix.com/search?q=stranger%20things&jbv=80057281)

This caption effectively utilizes vivid auditory imagery to amplify the chaotic and intense nature of the scene. The choice of the verb "slamming" enhances the intensity and chaos of the situation. It creates a vivid mental image of the creatures forcefully colliding behind the wall. Additionally, the adverb "loudly" adds to the sense of urgency and tension, immersing the audience in the tumultuous atmosphere. Furthermore, the choice of the noun "creatures" contributes to the vividness of the imagery. It implies the presence of unknown or monstrous entities, heightening the sense of danger and intrigue, and capturing the audience's attention.

This caption also serves multiple functions and can be classified into various sub-categories. As observed, it effectively "Guides Our Attention" by directing the viewer's focus to a specific aspect of the scene. But it also "Expands the Narrative Space" (since the source of the sound is off-camera), and "Assists in Plot Development" (by enhancing the viewer's understanding of the narrative). The following sections will provide a more detailed analysis of these functions.

Classified under the label **"Expands the Narrative Space"** (11.92%) are those sound descriptors that are not visible on the scene or occur off-camera but provide narrative information that is relevant to the plot, thus enhancing the viewers' understanding of the story.

[unsettling audio distortion]

This caption depicts an off-camera sound, adding a sense of unease and disturbance to the scene. It creates a mysterious and anticipatory atmosphere, prompting viewers to speculate about its implications for the story.

Stylistically, the adjective "unsettling" appeals to the viewer's emotions and sets a sense of tension or suspense. Furthermore, the phrase "audio distortion" conveys a sense of dissonance or abnormality. This expansion of the narrative space enables individuals who are Deaf or Hard of hearing to immerse themselves in the story on a deeper level.

[floorboards creaking]

This caption describes a sound, but it also evokes a sense of suspense and tension within the scene. The word "creaking" creates an auditory image that can be associated with old, aging, or possibly haunted spaces. It adds a layer of suspense, mystery, or unease, as it is often associated with unexpected or eerie noises. For the Deaf or Hard of hearing audience, it contributes to the atmosphere of the scene and enhances their experience.

Captions that fall under the category **"Assists Plot Development"** (8.61%) go beyond the visual representation and provide important auditory details that enhance the understanding of the narrative.

[epic synth music building]

This caption was also widely commented on on social media. It depicts a significant moment in the story: Eleven's decision to confront Vecna. This scene carries immense emotional weight, further intensified by the description of the accompanying music. As a result, this caption was also categorized as serving an emotive function.

Figure 12. *Still From "Stranger Things" Season 4 (2022)*
(Retrieved from https://www.netflix.com/search?q=stranger%20things&jbv=80057281)

The use of the adjective "epic" suggests that the music is of extraordinary scale or significance, heightening the emotional impact of the moment. Furthermore, the verb "building" indicates a gradual increase in intensity, creating anticipation and preparing the audience for impactful plot development. The precise wording of this caption demonstrates its adequacy in capturing the essence of the music and the tone, and its role in amplifying the storytelling experience.

In our examination, we did not find any closed captions whose function was to **"Provide Coherence in the Narrative"** (0.00%). Within the context of SDH, closed captions that contribute to narrative coherence can be categorized as captions that maintain narrative continuity. Such captions often include character identifiers, which aid Deaf and Hard of hearing viewers in discerning the speakers involved in a given scene. As our analysis focuses solely on sound and music identifiers, this particular subcategory remains unrepresented.

We can conclude that the narrative function of closed captions plays a vital role in ensuring that crucial narrative elements are conveyed effectively enhancing the viewers' comprehension and engagement with the audiovisual content, especially

for the Deaf and Hard of hearing audience. These descriptors direct the viewers' focus toward specific elements within the narrative, ensuring that important auditory details are not overlooked, particularly when they occur off-camera.

Contextual

The contextual function also holds significant importance in closed captioning. This function was fulfilled by a total of 188 descriptors (31.13%).

CONTEXTUAL	Total CC	%
Provides Contextual Information	159	26.32
Contributes to the Realism of the Whole	29	4.80
	188	**31.13%**

Table 6. *Total Sum And Percentages Of Closed Captions With Contextual Function*

The majority of closed captions **"Provide Contextual Information"** (26.32%). By describing sounds, such as background noises, environmental effects, or off-screen audio elements, these captions enable individuals who are Deaf or Hard of hearing to fully grasp the scene's setting or atmosphere and follow the story in a more comprehensive way.

[door creaks open]

A contextual caption, such as this one, serves to inform non-hearing viewers about sound elements that are relevant to the scene and that may offer contextual information that help them understand the development of the story.

["Running Up That Hill" playing over headphones]

This caption informs Deaf and Hard of hearing viewers that Max is listening to the song "Running Up That Hill" through her headphones. It is worth mentioning that this song plays a crucial role in her emotional journey, as it provides her comfort and solace during her grieving process.

Figure 13. *Still From "Stranger Things" Season 4 (2022)*
(Retrieved from https://www.netflix.com/search?q=stranger%20things&jbv=80057281)

Contextual captions also **"Contribute to the Realism of the Whole"** (4.80%) by adding details that enhance the realism of the scene. This ensures that Deaf and Hard of hearing audiences have access to the same auditory cues and immersive elements as hearing viewers.

[birds tweeting]

This caption provides environmental sound cues in a forest scene. It conveys the presence of birds, which is an expected characteristic in natural environments. Including the description of the sound adds realism to the scene and contributes to the overall authenticity of the environment.

Contextual captions contribute to enriching the viewer's comprehension and experience. They include information that provides details about the location, environment, or atmosphere of a particular scene. These descriptors allow viewers, especially those with hearing loss, to better grasp the spatial and visual elements that shape the narrative.

Emotive

When considering the overall results, it is evident that the exegetic and narrative functions hold significant weight, constituting 57.12% and 35.6% of the total number of captions, respectively. However, a closer examination of the subcategories reveals that the emotive/aesthetic function stands out with the highest number of descriptors, totaling 192 and accounting for 31.79% independently.

EMOTIVE / AESTHETIC	Total CC	%
Generates /Reinforces Emotions	192	31.79

Table 7. *Total Sum And Percentages Of Closed Captions With Emotive Function*

This can be attributed to the language and imagery employed in the descriptions, which use a variety of adjectives and adverbs to effectively describe the emotional qualities of sound and music, resulting in a more vivid and sensory experience. This creative approach captures the emotional nuances of sound elements but also contributes to the overall aesthetic and atmospheric experience for both hearing and non-hearing audiences. This not only enriches their engagement with the narrative but also demonstrates the thoughtfulness and attention to detail put into ensuring an inclusive and captivating audiovisual experience. The following examples serve to illustrate this:

[low, unnerving synth music plays]

This caption serves as an excellent example of a comprehensive and detailed music descriptor. The use of the adjective "unnerving" creates a sense of discomfort and mystery, which elicits an emotional response, triggering feelings of tension or anxiety. The adjective "low" suggests the music's subdued or deep quality. It conveys a sense of darkness or foreboding, enhancing the atmospheric quality of the scene.

[eldritch thrumming]

This is another caption very commented on on social media. "Eldritch" is an adjective that describes something strange, eerie, or otherworldly in a supernatural or unsettling way. It is often used to refer to entities, beings, or phenomena that are mysterious, disturbing, or beyond human comprehension. The term is commonly associated with horror, fantasy, or Lovecraftian literature, where it conveys a sense of cosmic horror or the presence of ancient, powerful forces that defy human understanding. The addition of "thrumming" introduces an onomatopoeic element, suggesting a deep, rhythmic, and mysterious vibration or humming sound. The unusual combination of "eldritch" and "thrumming" in SDH creates a unique and vivid description capable of conveying a feeling of unease or mystery.

[tender, emotional music swells]

The use of descriptive adjectives such as "tender" and "emotional" evokes a specific mood and emotional quality associated with the music, creating an atmosphere of sensitivity and heartfelt sentiment. The adjective "emotional" also implies a depth of feeling and intensity. It suggests that the music elicits strong emotions, evoking, deep introspection, or profound sensitivity. The mention of the verb "swells" adds a sense of building intensity, implying that the music gradually increases in emotional depth and impact.

[ichorous tentacles constrict]

This closed caption conveys a vivid and descriptive image of tentacles tightening or squeezing while creating a sense of tension and danger. It uses imagery to enhance the visual representation of the tentacles. The word "ichorous" suggests a viscous and unpleasant substance, contributing to a sense of dread or horror. This description creates a distinct and vivid mental picture of the tentacles, suggesting they possess a strange and otherworldly nature. The verb "constrict" implies a forceful and restrictive action, further intensifying the imagery and evoking a feeling of being trapped or helpless. The combination of the unique adjective "ichorous" creates an original and unconventional description. It deviates from traditional or clichéd terms, offering a fresh approach and engaging the audience's imagination in a distinctive way. This caption is so evocative that it fulfills all four functions.

Figure 14. *Still From "Stranger Things" Season 4 (2022)*
(Retrieved from https://www.netflix.com/search?q=stranger%20things&jbv=80057281)

[jarring stinger]

In this sentence, the adjective "jarring" functions as an epithet, which is a descriptive term used to emphasize a specific trait or characteristic. It highlights the nature or impact of the stinger, implying that it is sudden, shocking, or unsettling. By using the term "jarring," the sentence emphasizes the unexpected and disruptive quality of the sound. In the context of the movie, this sound effect serves a purely aesthetic purpose, adding to the overall atmosphere or mood without serving a narrative or contextual function.

The emotive function of closed captions plays a crucial role in enhancing the audiovisual experience for the Deaf and Hard of hearing audience. The creative use of imagery and genre-specific terminology in these captions creates a distinct sonic atmosphere and demonstrates a level of craftsmanship capable of enhancing the overall quality of the audiovisual content. By skillfully employing vivid language and sensory details, these captions transcend the mere conveyance of information and become a form of artistic expression.

[CONCLUSIONS]

The analysis of the corpus of music and sound effect descriptors extracted from the last episode of the television series *Stranger Things* titled "The Piggyback" has provided valuable insights into the functions and adequacy of closed caption descriptions, offering implications for improving captioning practices. The results confirm the hypothesis that linguistic creativity in closed captions enhances the viewer's immersion and overall experience.

The analysis reveals that the exegetic and narrative functions play crucial roles in guiding the audience through the storyline and enhancing their understanding of the narrative. Recommendations include using detailed descriptions and capturing auditory details that may not be obvious in the visuals, augmenting the narrative for the Deaf and Hard of hearing audience without duplicating visual information. The emotive/aesthetic function, while not predominant, also plays an important role, as it conveys emotions and sets the tone of the show. The examples analyzed demonstrate how the use of vivid and sensory language creates a more immersive and engaging experience, emphasizing the importance of using genre-specific language to reflect the purpose and intention of the sound design. The significance of adequacy in closed caption description is also emphasized. Detailed, descriptive captions go beyond mere transcription; they evoke mental imagery and resonate with the intended atmosphere, providing emotional cues and enhancing the enjoyment of the experience, particularly for the Deaf and Hard of hearing audience.

Although Tsaousi's (2015) taxonomy proves to be valuable in differentiating the functions of sound and music elements in the audiovisual content, her categorization lacks clear instructions regarding the classification of captions, which leads to ambiguity and subjectivity. Some descriptors can be classified into multiple categories, depending on the image they support and the nature of the sound they represent. As a result, further refinement of the categorization scheme may be necessary to ensure a more precise and objective classification.

For the purpose of this study, it is also important to note that while a caption may serve multiple functions, it does not necessarily indicate greater creativity or impact. Instead, impactful captions employ terms infused with a sensory or emotional meaning, effectively conveying the scene's emotional tone, atmosphere, and audio elements.

The findings also underscore the significance of including music descriptors when analyzing linguistic creativity in SDH, as they greatly contribute to enhancing the emotive function of closed captions. While Tsaousi's (2015) approach excludes music in her analysis due to its distinct characteristics and rules, this study reveals that music descriptors contribute to creating a more immersive experience, particularly in evoking and portraying emotions. Furthermore, music descriptors enhance the comprehension and engagement of viewers, particularly those with hearing impairments. By employing detailed and imaginative language to describe the music, closed captions effectively capture the emotional impact of the sound design. A notable example of this is observed in the battle scene, where the intense music significantly contributes to the depiction of tension and emotions. Therefore, it is recommended that future studies and captioning practices acknowledge the significance of music descriptors and their role in fostering an immersive and enjoyable viewing experience.

The recommendations provided aim to enhance the adequacy and effectiveness of closed captioning practices, ensuring a more engaging viewing experience. However, future research should expand this knowledge by exploring different genres, languages, and media types to understand the broader impact of linguistic creativity in closed captions. The audience's new role as prosumers and active spectators has extended the use of closed captions beyond accessibility, serving a broader audience. Future studies should focus on user-centered input and feedback in order to assess the quality and enjoyment effect of linguistically creative subtitles. It is also essential to consider the industry's expectations towards this creative approach and revisit the discussion surrounding authorship, as crafting creative and evocative closed captions demands a unique set of skills.

We can conclude that the use of imagery and rhetorical techniques in closed captions represents a creative and engaging approach that significantly enriches the viewer's experience. By skillfully combining descriptive language, sensory details, and artistic expression, captions transcend their primary function of providing accessibility for individuals with hearing impairments. They also serve as an alternative means of conveying auditory information to all viewers, captivating, inspiring and leaving a lasting impression on both hearing and non-hearing audiences. Using linguistic creativity in closed captions highlights their significance as a versatile tool that not only ensures equal participation and access for all viewers but also enhances immersion and adds depth and richness to the audiovisual content.

[BIBLIOGRAPHY]

Asociación Española de Normalización y Certificación (AENOR) (2012). Subtitulado para personas sordas y personas con discapacidad auditiva. (Norma UNE 153010). Retrieved from: https://www.une.org/encuentra-tu-norma/busca-tu-norma/norma?c=N0049426

Agulló, B., Matamala, A., & Orero, P. (2018). From Disabilities to Capabilities: testing subtitles in immersive environments with end users. *Hikma*, *17*, 197-222. https://doi.org/10.21071/hikma.v17i0.11167

Arnáiz-Uzquiza, V. (2012). Subtitling for the deaf and the Hard of hearing: Some parameters and their evaluation (Doctoral thesis). Universitat Autònoma de Barcelona, Spain.
http://hdl.handle.net/10803/117528

Bartoll, E. (2008). Paràmetres per a una taxonomia de la subtitulació (Doctoral thesis). Universitat Pompeu Fabra, Spain.
https://repositori.upf.edu/handle/10230/12088.

Butler, J. (2020). The Visual Experience of Accessing Captioned Television and Digital Videos. *Television & New Media*, *21*(7), 679–696.
DOI: 10.1177/1527476418824805

Diáz Cintas, J; (2010) La accesibilidad a los medios de comunicación audiovisual a través del subtitulado y de la audiodescripción. In: González, L and Hernúñez, P, (eds.) *El español, lengua de traducción para la cooperación y el diálogo*. (pp. 157-180). ESLEtRA: Madrid, Spain. Retrieved from:
https://discovery.ucl.ac.uk/id/eprint/1539110/1/Access_InstiCervantes_10.pdf

Gottlieb, H. (1992). Subtitling - A New University Discipline. In *Teaching Translation and Interpreting: Training, Talent and Experience.* Papers from the First Language International Conference, Elsinore, Denmark, 31 May-2 June 1991 (pp. 161-170). John Benjamins Publishing Company. Retrieved from: https://ebookcentral.proquest.com/lib/uab/detail.action?docID=680961.

Greco, G. M. (2016). On Accessibility as a Human Right, with an application to Media Accessibility. In A. Matamala, and P. Orero (Eds.), *Researching Audio Description*. London, UK: Palgrave Macmillan. DOI:10.1057/978-1-137-56917-2_2

Greco, G. M. (2018). The nature of accessibility studies. *Journal of Audiovisual Translation*, *1*(1). 205-232. DOI:10.47476/jat.v1i1.51

Netflix. (2023). English Timed Text Style Guide. Retrieved from: https://partnerhelp.netflixstudios.com/hc/en-us/articles/217350977-English-Timed-Text-Style-Guide

Pedersen, J. (2018). From old tricks to Netflix: How local are interlingual subtitling norms for streamed television? *Journal of Audiovisual Translation, 1*(1). 81-100. DOI: 10.47476/jat.v1i1.46

Romero-Fresco, P. (2013). Accessible filmmaking: Joining the dots between audiovisual translation, accessibility and filmmaking. *The Journal of Specialised Translation*, 20, 201-223. https://www.jostrans.org/issue20/art_romero.pdf

Romero-Fresco, P (2021a). Creativity in Media Accessibility: A Political Issue. *Cultus: the Journal of intercultural mediation and communication*, 14, 162-197. https://www.cultusjournal.com/files/Archives/Pablo_Romero-Fresco_Cultus_14.pdf

Romero-Fresco, Pablo. (2021b). Creative Media Accessibility: Placing the Focus
Back on the Individual. In *Lecture Notes in Computer Science*, 12769, 291-307.
DOI: 10.1007/978-3-030-78095-1_22

Romero-Fresco, P., & Chaume, F. (2022). Creativity in Audiovisual Translation and
Media Accessibility. *The Journal of Specialised Translation*, 38, 75-101.
https://jostrans.org/issue38/art_romero.pdf

Romero-Fresco, P., & Brown, W. (2023). Reconsidering the balance between
standardisation and creativity in media accessibility: Notes on training. *The Journal
of Specialised Translation*, 39, 140-164.
https://jostrans.org/issue39/art_romero.pdf

Sapio Research. (2021). Stagetext Captioning and Subtitling Research.
Unpublished raw data.

Tsaousi, A. (2015). Making sound accessible: The labelling of sound effects in
subtitling for the deaf and Hard of hearing. *Hermeneus: Revista de la Facultad de
Traducción e Interpretación de Soria* (17), 233-252. Retrieved from:
http://uvadoc.uva.es/handle/10324/17010

Tsaousi, A (2017). Sound effect labelling in subtitling for the Deaf and Hard of
hearing: An experimental study on audience reception. (Doctoral Thesis).
Universitat Autònoma de Barcelona, Spain. Retrieved from:
https://ddd.uab.cat/record/175831.

Tsaousi, A. (2017). El disfrute de la experiencia audiovisual por personas sordas y
con diversidad auditiva: la representación visual de los efectos sonoros. *Anuario
Electrónico De Estudios En Comunicación Social "Disertaciones"*, *11*(1), 110-126.
DOI: 10.12804/revistas.urosario.edu.co/disertaciones/a.4982

Zárate, S. (2021). Captioning and Subtitling for d/Deaf and Hard of Hearing Audiences. London: UCL Press.
DOI: 10.14324/111.9781787357105

Zdenek, S. (2015). Reading Sounds: Closed-Captioned Media and Popular Culture. University of Chicago Press.

Zdenek, S. (2018). Designing Captions: Disruptive Experiments With Typography, Color, Icons, And Effects. *Kairos: A Journal Or Rethoric, Technology And Pedagogy, 23* (1)
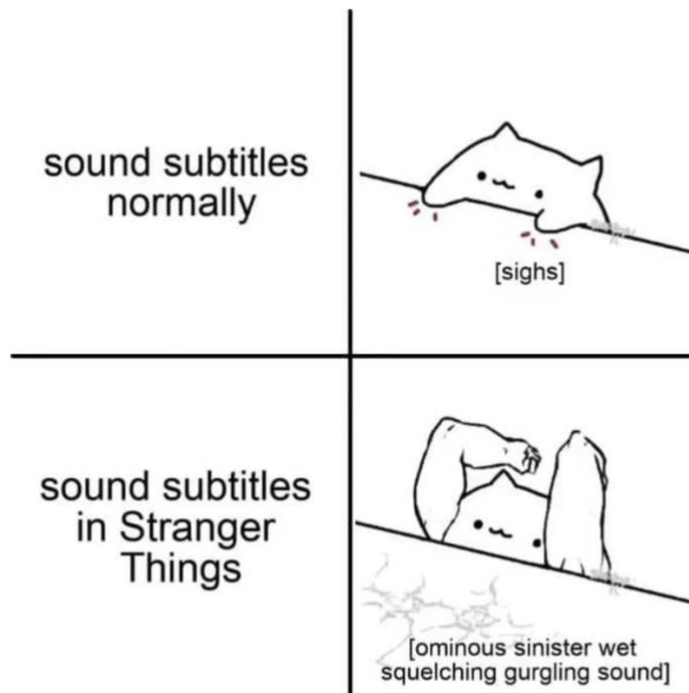https://kairos.technorhetoric.net/23.1/topoi/zdenek/

[ANNEXES]

The Oatmeal

- Inman, M. (2022, October 10). The Oatmeal. URL: https://theoatmeal.com/comics/subtitles

-

32. Let's hear it for the subtitles team who put their soul into it.

sound subtitles
normally

[sighs]

sound subtitles
in Stranger
Things

[ominous sinister wet
squelching gurgling sound]

- Humorama Media. (2022, July 2). "30 Best Stranger Things Season 4 Memes [Vol. 1 & 2]"
URL: https://humornama.com/memes/stranger-things-4-memes/

Mark Lazerus @MarkLazerus · May 31, 2022 ···
The person who writes the **subtitles** for **#StrangerThings4** is an absolute
artist.

[curious synth music continues]

[determined synth music playing]

[hopeful synth music continues]

[disquieting synth music builds]

[discomforting synth music intensifies]

[delicate, intense music playing]

[food plops wetly]

[emotional, tender music playing]

[bone crunching]

[foreboding music playing]

◯ 13   ⟲ 15   ♡ 107   ılıl   ⬆

- Mark Lazerus @MarkLazerus. (2022, May 31). [Tweet]. Twitter. Retrieved from
https://twitter.com/MarkLazerus/status/1531724216105566209

sociological musician @insanelizzard88 · Jul 5, 2022

The **subtitles** made volume 4 even better #StrangerThings4

[guttural growling]   [screaming continues]   [ominous synth music playing]

[tentacles squelching wetly]   -[gasps] -[exclaims]   [tense music intensifies]

[eerie, delicate music playing]   [creature scuttling]   [floorboards creaking]

sarah day arts @sarahdayarts · Jul 4, 2022

watching stranger things 4 with captions means subjecting yourself to phrases like "tentacles undulating moistly" and "gate pulses wetly" and yes captions help my auditory processing but at what cost

- sociological musician @insanelizzard88 (2022, July 5). [Tweet]. Twitter. Retrieved from https://twitter.com/insanelizzard88/status/1544344587891875841

Dustin Kidd in Japan @KiddYoshiwatari · Jul 2, 2022

Well done on the **subtitles** here.

#StrangerThings4

[ferocious guitar riff]   [shreds guitar solo]

♡ 3

- Dustin Kidd in Japan @KiddYoshiwatari (2022, July 2). [Tweet]. Twitter. Retrieved from https://twitter.com/KiddYoshiwatari/status/1543094429140930565

-

Robert Carnes @jamrobcar (2022, July 25). [Tweet]. Twitter. Retrieved from
https://twitter.com/jamrobcar/status/1551630053947105281

The Times | Times Arts @TimesArts (2022, July 14). [Tweet]. Twitter. Retrieved from
https://twitter.com/TimesArts/status/1547520883064979457