Audio subtitling:
voicing strategies and their effect on film enjoyment
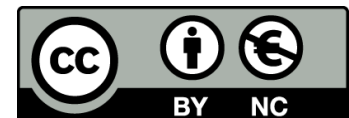
Gonzalo Iturregui-Gallardo (gonzalo.iturregui@uab.cat)

Department of Translation, Interpreting and Asian Studies

Autonomous University of Barcelona

Contents

- Introduction
  - Audio subtitling
  - Delivery effects
- User experience (UX)
  - Psychophysiology
- The main study
- Pilot experiment

Audio subtitles or spoken subtitles

- AST as the **aurally rendered** subtitles.

- AST are **read**, sometimes **acted out**, by **voice actors** or by **TTS**.

- AST are recorded as a form of **voice-over**.

- AST are recorded in a **semi-dubbed** form.

<div align="right">(Reviers & Remael, 2015)</div>

- Challenges: **hybrid technique**
  - Interface between **subtitling**, **audio description** and **voice-over**.

<div align="right">(Braun & Orero, 2010)</div>
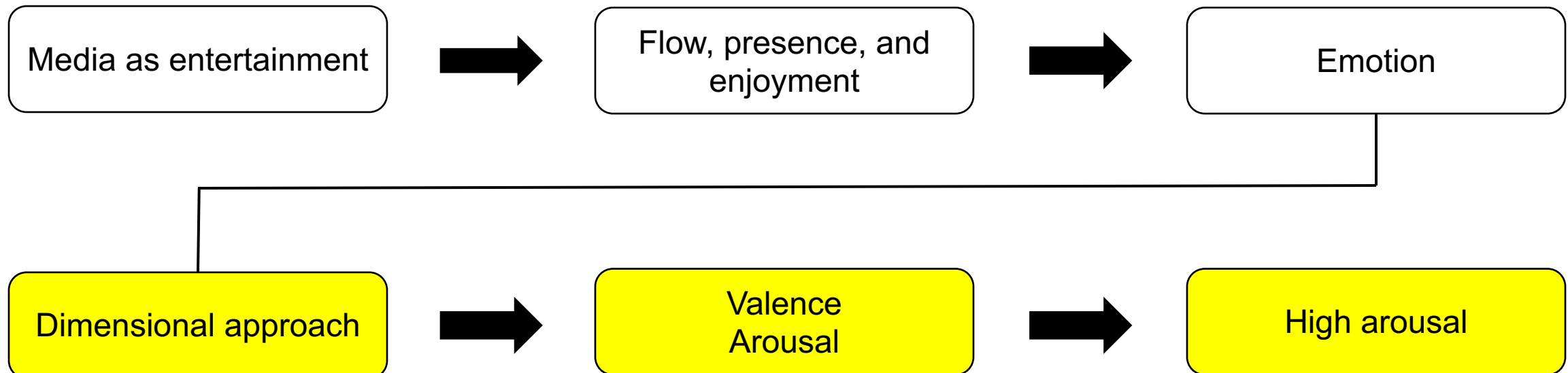
AST and their "effects"

- Dubbing effect
  - Acted ("imitation" of orality) (see Baños & Chaume, 2009; Sánchez Mompeán, 2016)
  - Original is not heard
  - Synchronised

- Voice-over effect
  - Read (less changes in prosodic features)
  - AST is superimposed and original can be heard
  - AST displayed after the original (imperfect isochrony)

User experience (UX)

- **Psychophysiology**: physiological bases of psychological processes
- Moving from the study of preference to the audiovisual/filmic holistic **experience**
  - EDA
  - HR

Media as entertainment ➡ Flow, presence, and enjoyment ➡ Emotion

Dimensional approach ➡ Valence Arousal ➡ High arousal

Main experiment

- Subexperiment 1: Comparison of two AST "effects"
  - Visually impaired participants

- Subexperiment 2: Comparison between sighted and visually impaired audiences
  - Subtitled scenes
  - Sighted participants

- Polish films (unknown language)
  - Previously validated (online)
  - Treated for experimental purposes

Pilot experiment

Serrano Ratera, A.; Méndez Ulrich, J.; Soler-Vilageliu, O.; Iturregui-Gallardo, G.; Jankowska, A. (2017)

- Main objective: to test the efficacy of psychophysiological measures in the induction of emotions by means of films.

- Sighted participants.

- Previously validated scenes (Schaefer et al., 2010).

Pilot experiment

➢ Independent variables
- Emotional value
  1. Happiness
 2. Sadness
  3. Rage

➢ Dependent variables
- Dependent variable (1): self-report
  1. Value
  2. Arousal
  3. Domination
- Dependent variable (2): psychophysiological measures
  1. EDA
  2. HR

Questionnaires

- Toronto Alexithymia Scale (TAS-20) (Taylor et al., 1988)

- Emotional Arousal: SAM questionnaire (Bradley & Lang, 1994)
  - Valence
  - Arousal
  - Domination

- Engagement Questionnaire (Busselle & Bilandzic, 2009)
  - Narrative Understanding
  - Attentional Focus
  - Narrative Presence
  - Emotional Engagement

SAM Questionnaire
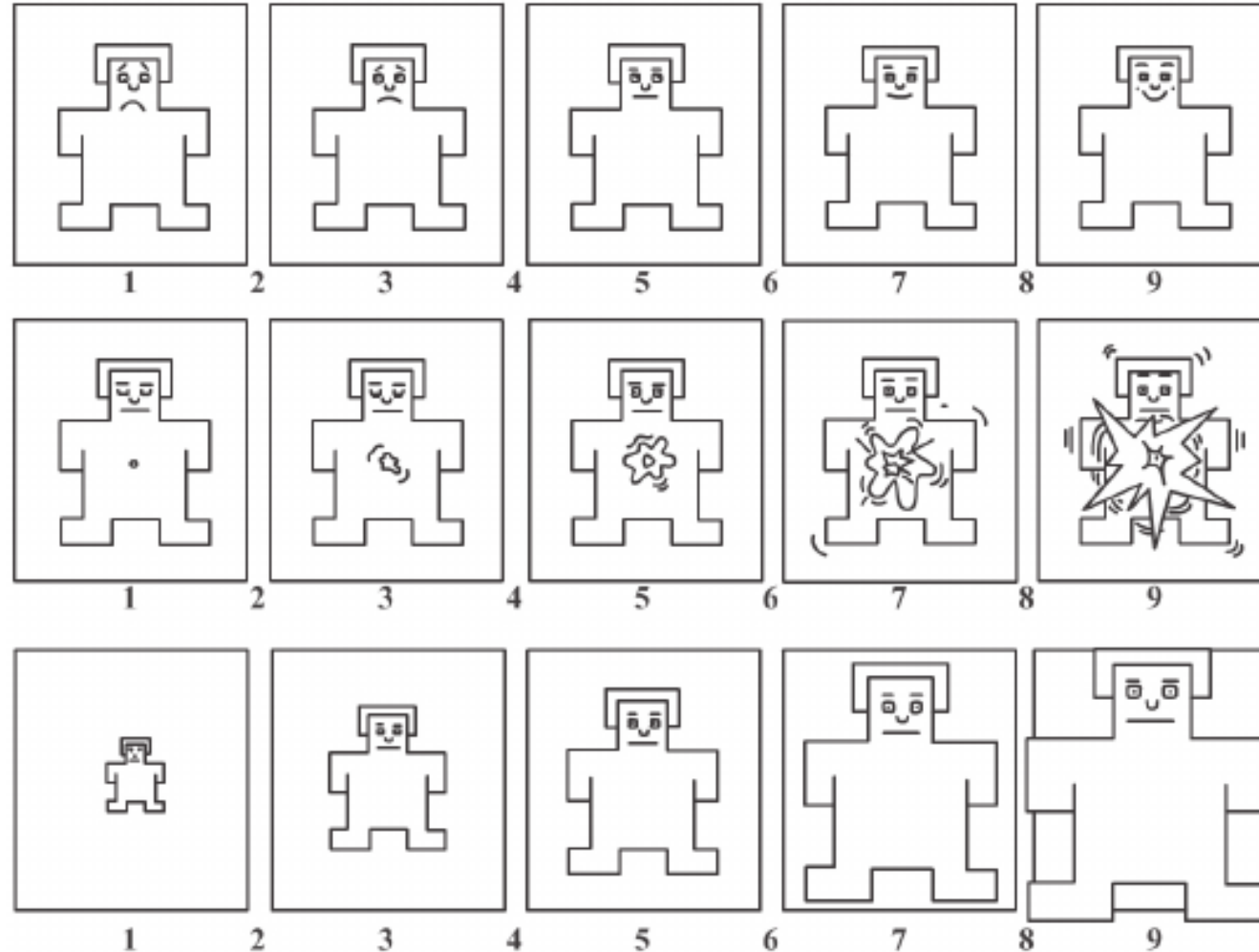
Psychophysiological markers

- Captiv L-7000
  - Software
  - T-sense sensors

- Tobii (experimental procedure)

Experimental protocol

1. Consent and demographic questionnaire

2. Explanation of the experiment

3. Toronto Alexithymia Scale (TAS-20)

4. Base line recording: brief relaxation period, induced by music (8 min)

5. Film fragment (1) is projected

6. SAM questionnaire and Engagement questionnaire

7. Relaxation (4 min)

→ Film fragments (2) and (3).

Experimental results

	Arousal	Valence	Dominance
Happiness	5.0	6,40	6.20
Anger	6.60	2.20	4.40
Sadness	5.80	2,4	5.0

Table 1. SAM subscales mean for each video.

Table 2. Integration analysis of HR during each video (arbitrary units).
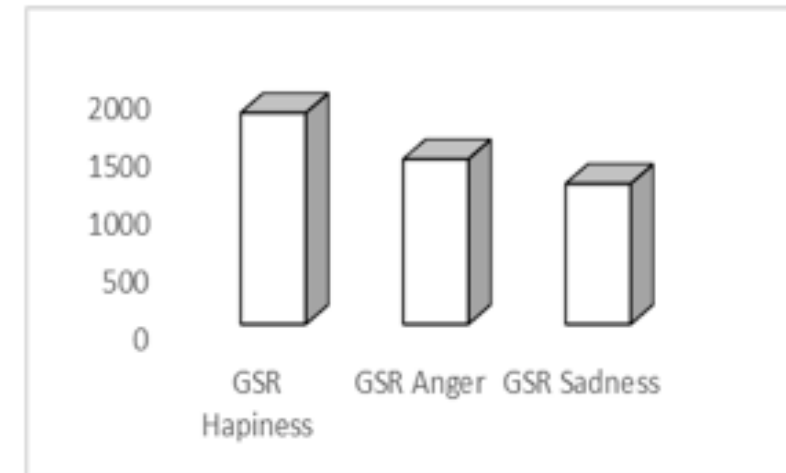

Table 3. Integration analysis of GSR during each video (arbitrary units).

Limitations

- Scenes: defining a clear and well defined emotion.

- Small sample.

- Contact and participation of blind and visually impaired participants (for the main experiment).

Audio subtitling:
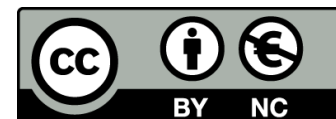# voicing strategies and their effect on film enjoyment

Gonzalo Iturregui-Gallardo (gonzalo.iturregui@uab.cat)

Department of Translation, Interpreting and Asian Studies

Autonomous University of Barcelona

Appendix:

Alexithymia questionnaire
Narrative engagement questionnaire

Alexithymia questionnaire

The TAS-20 has 3 subscales:

- Difficulty Describing Feelings subscale is used to measure difficulty describing emotions (5 items)

- Difficulty Identifying Feeling subscale is used to measure difficulty identifying emotions (7 items)

- Externally-Oriented Thinking subscale is used to measure the tendency of individuals to focus their attention externally (8 items)

Engagement questionnaire

Narrative understanding

- NR4: At points, I had a hard time making sense of what was going on in the program.
- CP4: My understanding of the characters is unclear.
- EC2: I had a hard time recognizing the thread of the story.

Attentional focus

- DS1: I found my mind wandering while the program was on.
- DS2: While the program was on I found myself thinking about other things.
- DS3: I had a hard time keeping my mind on the program.

Narrative presence

- NP4: During the program, my body was in the room, but my mind was inside the world created by the story.
- NP3: The program created a new world, and then that world suddenly disappeared when the program ended.
- NP1: At times during the program, the story world was closer to me than the real world.

Emotional engagement

- EP5: The story affected me emotionally.
- EP3: During the program, when a main character succeeded, I felt happy, and when they suffered in some way, I felt sad.
- SM1: I felt sorry for some of the characters in the program.

*Key to items' original theoretical constructs: CP D cognitive perspective taking; EP D empathy; SM D sympathy; NP D narrative presence; NI D narrative involvement; LS D loss of self; EC D ease of cognitive access; DS D distraction; NR D narrative realism.

(Busselle & Bilandzic, 2009)

References

- Baños, R., & Chaume, F. (2009). Prefabricated Orality. A Challenge in Audiovisual Translation. In M. G. Marrano, G. Nadini, & C. Rundle (Eds.), The Translation of Dialects in Multimedia. Retrieved from http://hdl.handle.net/10234/33919

- Bradley, M., & Lang, P. J. (1994). Measuring Emotion: The Self-Assessment Semantic Differential Manikin and the. Journal of Behavior Therapy and Experimental Psychiatry, 25(I), 49–59. https://doi.org/10.1016/0005-7916(94)90063-9

- Braun, S., & Orero, P. (2010). Audio description with audio subtitling – an emergent modality of audiovisual localisation. Perspectives: Studies in Translatology, 18(3), 173–188. https://doi.org/10.1080/0907676X.2010.485687

- Busselle, R., & Bilandzic, H. (2009). Measuring Narrative Engagement. Media Psychology, 12(4), 321–347. https://doi.org/10.1080/15213260903287259

- International Organization for Standardization. (2010). ISO 9241-210:2010 Ergonomics of human-system interaction - Part 210: Human-centred design for interactive systems. International Organization for Standardization. Retrieved from https://www.iso.org/standard/52075.html

- ISO, & IEC. (2016). ISO/IEC 20071-25. Information Technology — User interface component accessibility — Part 25: Guidance on the audio presentation of text in videos (including captions, subtitles, and other on screen text).

- Sánchez Mompeán, S. (2016). "It's not what they said; it's how they said it": A corpus-based study on the translation of intonation for dubbing. In A. M. Rojo López & N. Campos Plaza (Eds.), Interdisciplinarity in Translation Studies. Theoretical Models, Creative Approaches and Applied Methods. Bern, Berlin, Bruxelles, Frankfurt am Main: Peter Lang.

- Serrano, A., Méndez Ultich, J., Soler-Vilageliu, O., Iturregui-Gallardo, G., & Jankowska, A. (2017). Un diseño experimental para la inducción emocional mediante películas: posibilidades y limitaciones. Poster. VI Jornadas Emociones y Bienestar, Madrid, September 29th 2017.

- Reviers, N. (2014). Audio Introductions. In A. Remael, N. Reviers, & G. Vercauteren (Eds.), Pictures Painted in Words, ADLAB Audio Description Guidelines.

- Reviers, N., & Remael, A. (2015). Recreating multimodal cohesion in audio description: A case study of audio subtitling in Dutch multilingual films. New Voices in Translation Studies, 13(1), 50–78.

- Schaefer, A., Nils, F., Philippot, P., & Sanchez, X. (2010). Assessing the effectiveness of a large database of emotion-eliciting films: A new tool for emotion researchers. Cognition and Emotion, 24(7), 1153–1172. https://doi.org/10.1080/02699930903274322

- Taylor, G. J., Bagby, R. M., Ryan, D. P., Parker, J. D., Doody, K. F., & Keefe, P. (1988). Criterion validity of the Toronto Alexitymia Scale. Psychosomatic Medicine, 50(5), 500–9. Retrieved from https://xpv.uab.cat/,DanaInfo=.aIoulkmzzHx5tpMq32,SSL+pubmed?pmid=3186893#