Musical stairways to creativity heavens: a chain-reaction theory about the benefits of background music in literary translation

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Abstract

Research in the psychology of music has shown that music-listening can foster psychological transportation. Whether played alone or as a complement of other artistic products such as films or narratives, music allows listeners to travel mentally to fictional realities. This phenomenon occurs due to the potential of music to trigger cognitive and affective reactions in listeners such as visual stimulation and emotional engagement. Simultaneously, recent studies in translation process research (TPR) have revealed how translation performance can benefit from both visualization and emotional involvement, making the difference in the resulting target text. Therefore, this paper proposes a theory based on a chain-reaction model, according to which background music would eventually lead to an increase of translation creativity through the filter of psychological transportation. Practical implications of our model would entail using instrumental background music to foster motivation in translation environments, which could possibly lead to higher-quality and more creative target texts.

Keywords: background music; psychological transportation; visualization; aesthetic emotions; translation creativity.

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1. On how music can inspire translators. A chain-reaction approach

Picturing a scene where a translator is typing to the beat of the music that fills the whole room, getting more and more inspired at every note, sounds so romantic it may be almost totally convincing in itself. In fact, the power of music as a favorable stimulus for motivation and creativity in different activities such as reading and writing has been explored with promising results (see Kariuki & Honeycutt, 1998; Holenderski & Hu, 2013; Hallam & Godwin, 2015). In translation studies, there is also some evidence that certain types of background music can lead to more creative target texts by increasing translators' emotional engagement (Naranjo, 2018, 2019). However, the role of musical absorption or inspiration as an intermediate triggering agent for creativity is still to be examined in this field. Even if inspiration may be seen as a slippery construct for scientific purposes, being inspired or absorbed by the sound of music or any other piece of art is not just a random subjective feeling, but it actually constitutes a well-documented and measurable experiential phenomenon known as *psychological transportation*. Transportation has been defined as a feeling of temporarily losing self-awareness while mentally travelling to a fictional world "despite one retains a consciousness of its being 'made up'" (Wolf, 2007: 16).

During the process of translation, exposure to source texts with an artistic value may also lead translators to experience transportation when they adopt their role of *transreaders* (Doyle, 1991), i.e., when they read to translate. We could then wonder whether transportation could also leave some kind of print on the resulting target text. Being transported is usually a pleasurable episode (Green et al., 2004; Busselle & Bilandzic, 2009), something which makes the artistic experience somehow complete and meaningful for the recipient and, as such, an indicator of the quality of the artwork itself. Therefore, it seems plausible that translators can get more eagerly involved in a translation task if they experience transportation, which, in turn, may also lead to higher-quality target texts. However, transportation may not always spontaneously occur, since it usually requires some degree of artistic sensibility, mood predisposition and/or emotional identification with the characters or the events portrayed in the text (Busselle & Bilandzic, 2009; Green & Brock, 2000). Then, is there any way to induce transportation in translators with the aim of making their work more enjoyable and, ultimately, improving their performance? This paper aims to answer this question by proposing a chain-reaction theory in which background music would act as a natural enhancer of translation performance.

Research in the field of the psychology of music has shown how musical stimuli constitute a powerful tool that can exert a strong influence upon the human psyche. Such potential has been exploited in numerous contexts, from therapeutic treatment (musical therapy) to advertising (audiomarketing). From an aesthetic point of view, one of the most interesting reactions that music can provoke in listeners is *musical transportation* (Leizerovici, 2014). Whether played alone or accompanying other artworks (e.g., movie soundtracks), empirical

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studies have shown how music can also lead listeners to travel to fictional worlds where they even become the protagonists of their own story (Costabile & Terman, 2013; Garrido & Schubert, 2011; Leizerovici, 2014).

By following the three main stages of any chemical chain reaction (initiation, propagation and termination), in the next sections we attempt to illustrate how instrumental background music could be the trigger of a cascade of reactions that would eventually lead to higher-quality and more creative literary target texts.

2. Initiation: music and source texts as a trigger for transportation

Being the first stage in any chain reaction, initiation involves a triggering agent that gives rise to a change in the pre-existing conditions. In the romantic image of the literary translator getting transported by music that we evoked earlier, initiation would consist in the occurrence of transportation, since the phenomenon of being transported entails a change in the pre-existing mental predisposition of the translator triggered here by two different artistic stimuli: music and the literary source text. Both music and literary texts have been proven to have this transportative potential thanks to the possibility they offer to get mentally immersed in imaginary realities. However, unlike it usually happens in chemical reactions, transportation cannot be envisaged as an immediate or sudden change of state in the translator's mind, but rather as a process that involves some intermediate steps. Accordingly, for transportation to occur, we can distinguish two main reactions that individuals should experience: visualization (also called *mental imagery*) and emotional engagement (De Graaf et al., 2009; Green & Brock, 2000; Juslin & Västfjäll, 2008; Leizerovici, 2014; Vroegh, 2012). In the following sections, we explain how the triggers of our chain reaction—music and literary source texts—can prompt visualization and emotional engagement, as the two intermediate steps leading to transportation.

2.1. Transportation through visualization

In order to get transported or travel mentally to a fictional environment, picturing the scene in our mind is necessary. Visualization would then consist in retrieving visual information from our memory to recreate scenarios we have previously perceived through our sense of sight. Mental scenes do not necessarily constitute accurate representations of the reality we once saw but, interestingly, we may combine the visual components stored in our memory to create new scenes that we may have never actually seen before (see Juslin & Vastfjäll, 2008, on *visual imagery*). Furthermore, another feature of visualization—which is what makes it part of our chain-reaction model—is that it is associated with both literary reading and music listening, having been identified as one of the most common reactions that take place in both readers and listeners.

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From a cognitive point of view, some studies (De Koning & Van der Schoot, 2013) have highlighted the importance of visualization as a facilitating element for reading comprehension. There are, indeed, some premises in previous literature that would support this idea. Firstly, the *dual-coding theory*, which emerged in the 1970s, is based on the idea that, when trying to decode meaning from a given text, readers mentally picture the objects and actions that are verbally described. Secondly, visualization serves not only the purpose of a better understanding from a rational point of view, but it also allows to experience the reality portrayed in the text as if it was actually real. Research based on empirical studies (Stanfield & Zwaan, 2001; Zwaan et al., 2002) has revealed how readers can experience sensory reactions related to specific properties of objects, even when such properties are not explicitly described in the text. This experiential component of reading by which mental representations of verbal content are frequently accompanied by some type of sensory experience associated with the imaginary object can be explained through *embodied cognition* theories. Embodied cognition postulates that perception, action and sensory-motor activity are neurally intertwined and, therefore, the way we perceive the world depends greatly on our bodily experiences (Varela et al., 1991: 173).

In the context of literary reading, Otis' (2015) qualitative study based on observing how visualization occurs in readers. This work is inspired by Kozhevnikov's model (2007), which proposes two visualization profiles—spatial and pictorial—, depending on the neural pathway that each individual most frequently uses to process visual information. According to this model, individuals with a spatial profile tend to use the dorsal pathway, which stretches from the occipital to the parietal lobe of the brain, normally producing schematic images based on spatial relationship among objects. Contrarily, those with a pictorial profile use the ventral pathway, which covers the medial temporal lobe, and prefer more colorful and detailed images that include shapes and patterns. After collecting information about different visualization patterns during the experience of literary reading, Otis concludes that the type of profile also influences the way we transform verbal information in mental images.

Turning the attention now to music as the other main trigger of our chain reaction, imagery has also been recurrently pointed out as a common reaction associated with music-listening (see Holenderski & Hu, 2013; Juslin & Västfjäll, 2008; Leizerovici, 2014; Osborne, 1981; Vuoskoski & Eerola, 2012). Some studies have concluded that music seems to induce self-centered visualizations in which musically-triggered images can be the result of previous experiences stored in episodic or autobiographical memory (Juslin & Västfjäll, 2008; Leizerovici, 2014).

To sum up, both music and literary texts have the potential to activate visualization processes in listeners and readers. Mental images, frequently accompanied by embodiment (changes in our brain and body that make us physically experience the fictional world as if it was real) can contribute to the feeling of being transported to an imaginary reality or a fictional world depicted in a narrative.

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2.2. Transportation through emotional involvement

Transportation is commonly associated to a special kind of emotional reaction: *aesthetic emotions*, which are defined as emotions induced by objects with artistic properties, such as music or literature (Tellegen & Atkinson, 1974). Studies that have tackled aesthetic emotions from a psychological framework refer to the feeling of *being moved* as one of the most common reactions to artworks (Kivy, 1999; Kuehnast et al., 2014; Lavy, 2001; Eerola et al., 2016; Wassiliwizky et al., 2015). Some features associated to *being moved* are:

(1) Moderate levels of arousal, even if the individual subjectively experiences the emotions with great intensity.

(2) Pleasure and enjoyment of the experience.

(3) Physiological reactions like tears, a lump in the throat and *art-elicited chills*, including shivers, tingles and goose bumps.

(4) Both sadness and joy seem to be equally capable of inducing the feeling of being moved.

(5) The experience of being moved is typically associated to scenarios and important life events in which the interpersonal relationships play a relevant role, like births, death, reunions and break-ups.

In the context of music, the aesthetic component of emotions triggered by musical stimuli has also been widely recognized. Some scholars in the field of the psychology of music even defend the genuine character of musical emotions. In this regard, after a series of experimental studies to find out which emotional reactions were most commonly experienced by listeners, the GEMS—or Geneva Emotion Music Scale—model (Zentner et al., 2008) proposes nine representative categories of musical emotions: wonder, transcendence, joyful activation, energy, tenderness, peacefulness, nostalgia, sadness and tension.

Another emotionally-relevant aspect related to musical emotions is empathy as a personality trait (Kuehnast et al., 2014; Levinson, 1990; Wassiliwizky et al., 2015). Eerola et al. (2016) carry out a study in which they show how empathic individuals were more likely to experience more intense emotions when listening to sad music. The authors argue that trait empathy contributes to have a higher predisposition for *emotional contagion*, i.e., mimicking the emotions portrayed in music. Likewise, empathy seems to be one of the most relevant emotional reactions in the context of literary reading as well (see Keen, 2007; Mar et al., 2011; Sandford & Emmott, 2012). Keen (2007) proposes a model of narrative empathy by investigating the different variables that can induce empathy in readers. In this work, Keen points out that empathic reactions can be triggered by different linguistic and non-linguistic elements contained in the text. The author admits that the feeling of identification with characters is one of the fundamental aspects of narrative empathy but not the only one, as readers can also feel identified with the plot, the events or the circumstances narrated

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if they are similar to their own experiences (situational empathy). Generational differences in readers can also play a relevant role in terms of the intensity with which they may empathize, being stronger when the cultural, historical and social reality of the narrative world coincides with the one in which the reader lives. Moreover, the emotional valence of the scenes described in narrative also seem to be a key element, since—according to the author—negative emotions like pain and suffering are more likely to provoke empathic episodes than positive emotions like joy.

3. Propagation: the link between transportation and creative behavior

During the propagation phase, the intermediate elements of a chain reaction favor the appearance of a new third product. Accordingly, in our chain-reaction model visualization and emotional engagement would act as the intermediate reactions in translators' mind that give rise to a new component: creative behavior. Beyond the old narrow-minded conception of creativity exclusively associated to the generation of new products, modern psychology understands the creative behavior as any functional diversion from the mainstream way of thinking. From the second half of the 20th century, cognitivism contributes to reinforce the idea that creativity is not necessarily restricted to the arts or the gifted minds but to any everyday activity that may involve some sort of problem-solving (Ward et al., 1999; Kußmaul, 2010).

Under this new scope, existing literature on creativity has often linked creative initiatives to imagination (or visual imagery), emotional involvement and the feeling of being transported or absorbed in a given activity. In this section, we draw attention to scientific evidence revealing how the main two dimensions of transportation—visualization and emotional engagement—can awaken creative behavior.

3.1. Visualization and creativity

The relationship between visualization or imagination and creativity has been pointed out in many occasions: "there is little doubt from historical and anecdotal accounts that imagery plays a central role in creative functioning" (Ward et al., 1999). In fact, there is empirical evidence (Palmiero et al., 2016) that individual preference for a visual cognitive style is more likely to result in creative solutions than a verbal profile.

Some scholars (Gaut, 2003; Stokes, 2014) have argued that the potential of imagination to produce creative ideas lies in the fact that it enables enough flexibility to manipulate the reality in our mind. Moreover, individual differences based on subjective perception of the world, together with our own personal life experiences and desires, can lead to different mental representations and, therefore, novel solutions. Many scholars (Campos & González, 1994; Chavez, 2016; Kozhevnikov et al., 2013) have found that mental imagery can be linked to cre-

ative behavior in both artistic and scientific contexts. However, Kozhevnikov's results reveal that while artistic creativity is associated with a pictorial style of visualization, scientific creativity often responds to spatial mental representations.

Another type of creativity associated to visualization and relevant for translation is verbal creativity. Sadoski & Pavio (2013: 47) point to imagery as one of the basic mechanisms of verbal creativity, defined as the process of using different linguistic units to create new combinations of words. The authors understand visualization as a mental strategy that allows to test and try different scenarios, which is later expressed through language.

3.2. Emotional involvement and creativity

Emotions seem to play a decisive role in creativity, since creative products (e.g., a novel) partly result from the emotional engagement of individuals in the task that they are carrying out. Research in the field of psychology has collected evidence that both positive and negative emotions can render creative solutions in problem-solving. Therefore, it seems that there may not be a clear-cut correlation between the positive/negative character of emotions and creativity. Thus, while some studies have found a relation between positive mood and verbal creativity (see Isen et al., 1958), artistic and literary creativity may also be the result of depression and affective pathologies (Akinola & Mendes, 2008; Pourjalali et al., 2009). To explain why positive and negative moods can lead to creativity, De Dreu et al. (2008) propose a theory according to which there is a *dual pathway to creativity*, meaning there are two possible pathways (positive and negative emotions) that can prompt a creative behavior in individuals.

But beyond emotional valence (pleasant or unpleasant character of emotions), perhaps one of the most noteworthy ways of emotional involvement that has been associated to creativity is intrinsic motivation, which is closely linked to the Kantian concept of *disinterested pleasure*. Some notable voices in the study of creativity in psychology, such as Amabile (2013) and Sternberg & Lubart (1997), argue that intrinsic motivation constitutes one of the key requirements in creative behavior. This means that, when individuals do not enjoy what they do, when they focus rather on external rewards than on the task itself (intrinsic motivation), creativity is unlikely to appear.

Intimately connected to this relationship between motivation and creativity, Csikszentmihaly's theory of flow looks at creativity as stemming from the pleasing feeling experienced when our motivation to engage in an activity comes from enjoying the task itself. Such a gratifying feeling can lead to a state in which individuals get absorbed by what they are doing, "forgetting self, time and surroundings" (1996: 121), a phenomenon which the author refers to as *flow*.

It is possible that this similarity between the concept of flow and that of transportation is not accidental, which may constitute another argument to justify our theory.

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4. Termination: link between transportation and creativity in translation

Termination constitutes the final step in a chain reaction, in which a change in the original conditions of the medium is completed. Likewise, the last part of the chain reaction model proposed here would entail a change in the target text under the effects of transportation. Taking into account the previous arguments on how transportation may foster creative behavior, we predict that translators who experience transportation may also render more creative target texts. Simultaneously, some recent findings within the framework of translation process research (TPR) seem to point in the same direction. Below, we revise existing studies which have highlighted the relationship between transportation-related dimensions such as visualization and emotions and translation creativity.

Firstly, it is worth pointing out how creativity has gone from being an uncomfortable presence in translation to become something of an eye-catcher for translation scholars. After getting rid of its bad reputation as the enemy of translators due to its potential to jeopardize loyalty to the original text, translation studies have come to terms with creativity as something which is even inherent to the process of translation (see Bayer-Hohenwarter, 2009; Rojo, 2017; Kußmaul, 2000, 2005, 2010). Leaving aside the hostile attitudes of the past, this new reappraisal of creativity has been called *creative turn* (Perteghella & Loffredo, 2006). Within this new framework, some translation researchers have explored the concept of translation creativity by highlighting its nexus to visualization and emotional engagement.

Visualization has being pointed out as a cognitive mechanism that can facilitate translation, as it can help to understand the meaning of the source text and, therefore, successfully resolve translation challenges (Kußmaul, 2005; Martín de León & Witte, 1998; Martín de León, 2017a, 2017b). According to Martín de León & Witte (1998: 57), even if images do not appear completely neat in the translators' mind, they can contribute to making sense of the reality represented in the text.

Some years later, research in translation took a step forward by suggesting that visualization processes could not only lead to higher quality in translation, but also to more creative solutions in the target texts. In this regard, Kußmaul's work (2000, 2005) revolves around the relation between visualization and translation creativity. The author argues that, when translators visualize content from the source text and there is a change of perspective with respect to the original (zooming in and out), different mental representations can lead to different linguistic solutions in the target text. These changes of perspective or *creative movements* are explained in Kußmaul's model through frame semantics, a theory in cognitive linguistics based on the mental scenes that individuals build through their perception of reality. Following the logic of frame semantics, reading the source text would entail decoding its linguistic components (*frames*) through the mental representations (*scenes*) associated to them and translators should then try to find the most suitable frames in the target language to express

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the evoked scene. Therefore, translation strategies like transposition or modulation could be the result of these mental operations.

Recently, research carried out by Martín de León (2017a) has also explored the impact of individual visualization preferences in target texts. In this case study, the author uses three types of visualization patterns found in individuals (visual-spatial, visual-object and verbal) as well as translation challenges based on different types of descriptive content, such as those that included spatial relations between objects, detail-oriented descriptions or more abstract concepts. Results reveal some correlations between the participants' visualization preferences and the number of errors or mismatches produced in the different types of descriptive texts.

On the other hand, some scholars in TPR have recently shed some light with regard to the role of emotions in translation. Some studies (Lehr, 2013; Rojo & Ramos, 2016) have revealed how positive emotions induced through feedback seem to encourage translators to be more creative in subsequent tasks, whereas negative feedback can lead to paying more attention to accuracy. More specifically related to emotional engagement and also in connection with a positive mood, the influence of motivation has also been associated to higher levels of creativity in translation (see Jääskeläinen, 1996; Tirkkonen-Condit & Laukkanen, 1996). These findings are in agreement with Csikszentmihaly's theory of flow mentioned earlier. According to this theory, translators would be inclined to adopt a more creative approach when the task they are performing is so enjoyable that they can feel absorbed by it.

Finally, as a way of closing the loop of our chain-reaction theory, the phenomenon of transportation itself has also been explored in translation studies, although from an audience-oriented approach. Kruger et al. (2016) conduct an empirical study in which they show how same-language subtitles can positively contribute to psychological immersion in spectators. Their methodology combines subjective assessment through self-report questionnaires and EGG tests to detect brain patterns associated to *cognitive disembodiment*, i.e., the experience of abandoning your own body to travel mentally to a fictional world. Their results reveal higher levels of immersion when participants watched the film with subtitles. However, empirical research is still needed to find out about the role of transportation during the actual process of translation.

In summary, in the light of all the previously discussed evidence, we have attempted to present our chain-reaction theory throughout its three main stages. According to our model (see figure 1), background music would enable translators to get immersed (or *transported*) in the narrative of a given source text due to its potential to enhance visualization and emotional involvement (initiation). Such a feeling of disinterested pleasure and absorption (or *flow*), which can act as a trigger for creative behavior (propagation), could also motivate translators to produce more creative target texts (termination).

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FIGURE 1

Chain-reaction model representing the potential effects of background music in translation performance
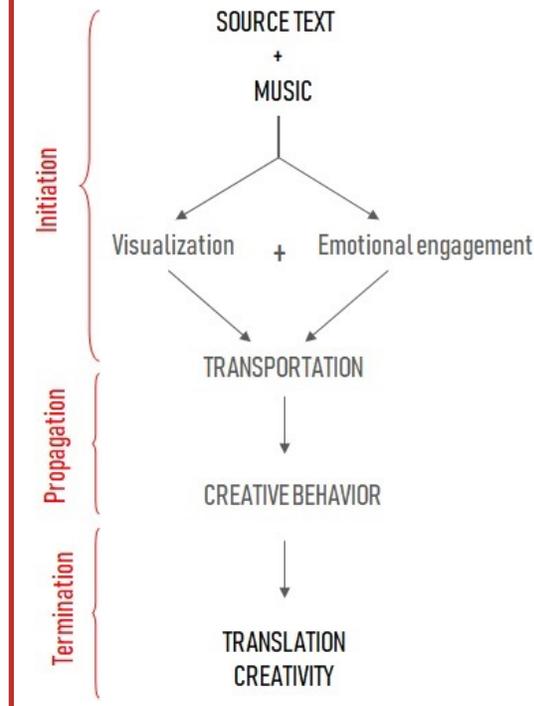
5. Elucidation: what type of music gets along with translation?

It could be easily argued that background music could act more as a distraction than as a benefit for translation. Indeed, it is probably too ambitious to speak about the beneficial or negative role of music in absolute terms without distinguishing among different types of music, different types of contexts or activities and even different types of individuals. For this reason, in this last section we provide some final remarks where we examine which factors can determine the successfulness of combining music and translation (see figure 2 for a summary).

5.1. Musical genre

Many of the most recent studies that have assessed the impact of background music on other cognitive activities like reading (Bottiroli et al., 2014; Dolegui, 2013; Thompson & Mutic, 2013) have chosen to use classical music as a stimulus. Such a preference is based on two main reasons: its instrumental character and its recurrent use in previous studies. On the one hand, most studies opt for instrumental music to avoid interferences between auditory stimuli and verbal stimuli. On the other hand, the fact that other studies have previously achieved significant results with classical music also constitutes an incentive to continue using the same kind of repertoire.

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5.2. Expressive properties of music

Rather than the specific musical genre itself, one of the most studied characteristics of music with regard to its impact on other cognitive activities is its expressive nature. Researchers have investigated such expressive properties taking into account the two basic dimensions of emotions: the emotional valence, which can be positive or negative (i.e., pleasant or unpleasant) and the arousal, which can range from high to low levels of activation and relaxation[1].

With regard to arousal, many studies show that, while relaxing music seems to lead to an improvement of performance in cognitive activities (including reading comprehension and verbal memory), stimulating music has the contrary effect (Smith & Morris, 1977; Hallam & Price, 1998; Hallam et al., 2002; Furnham & Stephenson, 2007; Dolegui, 2013). Such improvement in performance is allegedly due to the fact that relaxing music reduces stress and anxiety, whereas stimulating music can favor distraction. The distinction between *relaxing* and *stimulating* music has been attributed to formal elements of the musical structure such as tempo, loudness and musical complexity. In this regard, the activating or stimulating properties of music have been associated with fast tempo (Gabrielsson & Lindström, 2010), high volume (Bartlett, 1996; Juslin & Västfjäll, 2008) and high musical complexity (Tan et al., 2010), also referred to as *high-information load music* (Kiger, 1989). On the other hand, according to the same research, relaxing music would include the opposite patterns, i.e., slow tempo, low volume and non-complex music, featured by repetitive melodies and constant rhythm. Other musical features like harmony and articulation have also been pointed out as relevant factors. Thus, while consonance (harmonic melodies) and legato (smooth and fluid transition between notes) are associated with relaxation, dissonance and staccato normally provoke high arousal emotions like tension (see Gabrielsson & Lindström, 2010).

5.3. Listeners' profile

Some variables which are inherent to the individuals who are exposed to background music, such as personality, metacognitive regulation, musical training and musical preferences, can also make the difference in terms of how they are affected by musical stimuli.

The personality trait that has been mostly studied in this regard is extroversion/introversion. Introverts seem to be more likely to be negatively influenced by background music when they perform cognitive tasks. This is due to the higher vulnerability they present to be overstimulated, as their level of internal arousal (activation) is usually higher than in non-introverts (Cassidy & MacDonald, 2007; Furnham & Allass, 1999; Furnham & Bradley, 1997).

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1   This bi-dimensional theory based on valence and arousal as the two main components of any emotion draws on Russell's circumplex model of emotion (1980).

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Metacognitive regulation has also been found to be helpful to avoid potential distractions caused by music. Some studies (Hallam & MacDonald) have revised the existing literature about the role of background music in the educational context, concluding that some participants who are aware that music is interfering with their performance in the task adopt regulatory cognitive strategies to avoid this negative impact (2011: 781).

Listeners who have received musical training seem to obtain better results than those who have not. This has been found in reading comprehension tasks (Thompson et al., 2013) as well as creative writing (Ransdell & Gilroy, 2001). These results seem to be also in agreement with previous research arguing in favor of the benefits of musical training for the development of other intellectual capacities.

Finally, background music can exert positive or negative emotional reactions depending on whether it suits listeners' musical preferences (see Wheeler, 1985), which could also affect their cognitive performance. That is why some authors (Västfjäll, 2002) have allowed participants to choose their background music within a previous selection that had been made to satisfy different musical preferences.

5.4. Type of task

The complexity of a given task can also constitute a decisive factor when determining the influence of background music. Authors such as Smith (1961) have pointed out that music could be beneficial for simple and monotonous tasks, since it would eradicate a potential boredom effect, whereas it could constitute a distracting factor in more cognitively demanding activities. In order to determine what effect background music could have on a task like translation, we can refer to the studies that have tackled the influence of musical emotional induction (MMIP) in translation-related dimensions, such as decision time and memory.

One of the variables that can have some influence in translation tasks is decision time, since translating implies constant decision-making. Research has shown that inducing negative emotions through music may have a non-favorable effect on decision time. In this regard research (de l'Etoile, 2002; Kenealy, 1988; Velten, 1968) has shown that participants that had received a negatively-valenced emotional stimulus took longer to identify semantically-related words than those who had received a positive stimulus and that they produced less words in the same time. Keneley (1988) argues that such an effect may be due to the activation of defense reflexes caused by the negative emotions induced by music, which, in turn, consumes more attentional and cognitive resources in tasks that demand high mental speed, such as verbal association and decision-making.

Memory-related tasks can also be favored when musical stimuli express the same emotions than the input or prompts of a given task. This phenomenon is called mood congruent memory or MCM and it occurs when an individual is more likely to remember more information

after he is exposed to two stimuli with the same emotional valence. This effect has been specially studied with verbal association tasks in which participants had to suggest synonyms or antonyms of a given word (see Balch et al., 1999; de l'Etoile, 2002; Scharff & Nguyen, 2003), a task inherent to translation practice.

Finally, as for the modality of translation, our model has primarily focused on literary source texts. The act of translating other textual genres could be also influenced by the presence of musical stimuli, but possibly in a different way. We know that music alone can alter people's emotions, which could eventually have some impact on the translation process and product (e.g., by predisposing translators to tackle any translation task with more or less eagerness). However, in the context of literary translation, music cannot merely be envisaged as a simple on/off switch that allows to instantly shift moods. As we have argued in the previous sections, translating literature with background music can actually constitute a whole aesthetic experience featured by transportation, given the distinctive artistic nature of both music and source text.

FIGURE 2

Hypothetical ideal conditions in which background music may be beneficial for translation performance
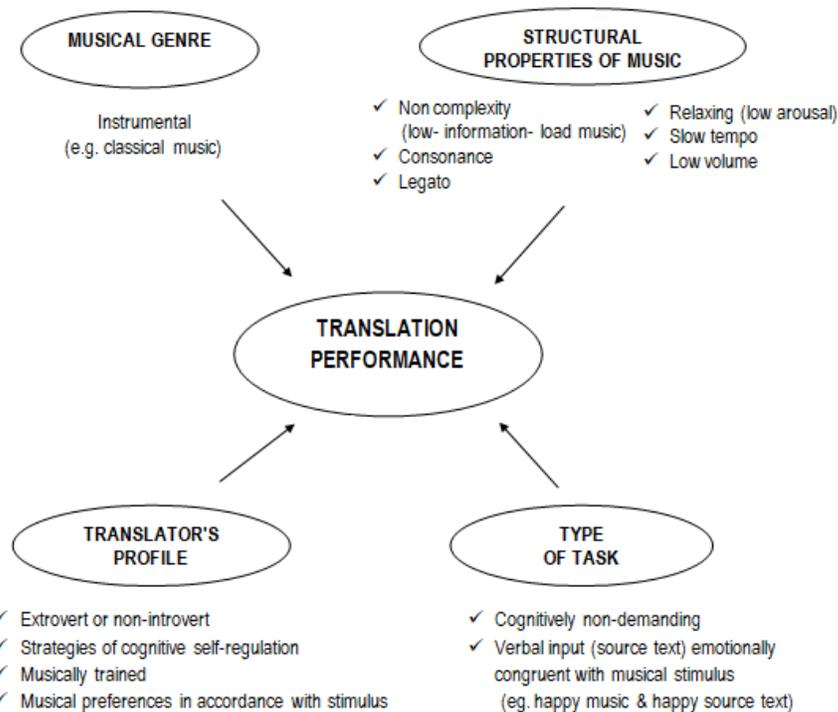
6. Conclusions

In this paper we have attempted to offer an overview about the potential effects of background music on a translation task from a psychological and aesthetic point of view. More

specifically, we have proposed a chain-reaction theory that would explain how literary translation could benefit from the phenomenon of musical transportation. This theory is based on a hypothetical domino effect in which background music would trigger psychological transportation leading to a greater psychological involvement in the task and, thus, contributing to translation quality and creativity.

For this purpose, we started from the definition of psychological transportation as an experiential phenomenon that can lead individuals to lose awareness of surroundings temporarily and mentally travel to other fictional worlds. Then, we explored the two main dimensions of this phenomenon—visualization and emotional engagement—as a reaction to both source texts and music, concluding that the most predictable effect of musical transportation on literary translation may be an increase of translation creativity. On the one hand, visualization may entail a change of perspective in relation to the author's original mental picture, which can lead to creative movements in the target text. On the other hand, emotional engagement during the process of translation may arise from the translator's disinterested pleasure in the task, which could also predispose to creative re-writing.

Finally, we have explored different musical and extramusical factors that could also determine whether our chain-reaction could unfold successfully. Previous research about the impact of background music on translation-related activities such as reading comprehension and verbal association allowed us to sketch a final picture about the ideal conditions in which a translation task should occur so that background music could become an ally for translators. In this regard, it seems that slow, gentle and consonant patterns with relaxing properties may constitute the optimal musical setting for translation.

As a final remark, it is worth to point out that an empirical approach to this theory would be extremely valuable to truly understand the real effects (if any) of musical absorption in translation. Even if trying to gain a deeper insight of this phenomenon in a laboratory setting can be quite an endeavour—especially when there is a myriad of other variables in play—, validated tests such as the Narrative Engagement test (Green & Brock, 2000) or the Auditory Transportation Scale (Leizerovici, 2014) may be helpful for this purpose. Experimental data could surely tell us more about the ideal *musical stairways* to improve translation performance.

7. Bibliographic references

Akinola, Modupe, & Wendy B. Mendes, 2008: "The dark side of creativity: biological vulnerability and negative emotions lead to greater artistic creativity", *Personality and Social Psychology Bulletin* 34 (12), 1677-1686.

Amabile, Teresa, 2013: "Componential Theory of Creativity" in Eric Kessler (ed.): *Encyclopedia of Management Theory*, London: Sage Publications, 134-139.

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Balch, William R., David M. Myers & Christine Papotto, 1999: "Dimensions of mood in mood-dependent memory", *Journal of Experimental Psychology: Learning, Memory and Cognition* 25, 70-83.

Bartlett, Dale L., 1996: "Physiological responses to music and sound stimuli" in Donald A. Hodges (ed.): *Handbook of music psychology*, San Antonio (Texas): Institute for Music Research Press, 343-385.

Bayer-Hohenwarter, Gerrit, 2009: "Translational creativity: how to measure the unmeasurable" in Susanne Göpferich, Arnt L. Jakobsen & Inger Mees (eds.): *Behind the Mind: Methods, Models and Results in Translation Process Research. Copenhagen Studies in Language*, Copenhagen: Samfundslitteratur, 39-59.

Bottiroli, Sara, Alessia Rossi, Riccardo Russo, Tomaso Vecchi & Elena Cavallini, 2014: "The cognitive effects of listening to background music on older adults: processing speed improves with upbeat music, while memory seems to benefit from both upbeat and downbeat music", *Frontiers in Aging Neuroscience* 6 (284), 1-7.

Busselle, Rick, & Helena Bilandzic, 2009: "Measuring Narrative Engagement", *Media Psychology* 12 (4), 321-347.

Campos, Alfredo, & María Ángeles González, 1994: "Influence of creativity on vividness of imagery", *Perceptual and Motor Skills* 78, 1067-1071.

Cassidy, Gianna, & Raymond A. MacDonald, 2007: "The effect of background music and background noise on the task performance of introverts and extraverts", *Psychology of Music* 35, 517-537.

Chavez, Rosa A., 2016: "Imagery As a Core Process in the Creativity of Successful and Awarded Artists and Scientists and Its Neurobiological Correlates", *Frontiers in Psichology* 7 (351).

Costabile, Kristi A., & Amanda W. Terman, 2013: "Effects of Film Music on Psychological Transportation and Narrative Persuasion", *Basic and Applied Social Psychology* 35, 316-324.

Csikszentmihalyi, Mihaly, 1996: *Creativity: Flow and the psychology of discovery and invention*, New York: Harper Collins.

De Dreu, Carsten K., Matthijs Baas & Bernard A. Nijstad, 2008: "Hedonic tone and activation level in the mood-creativity link: toward a dual pathway to creativity model", *Journal of Personality and Social Psychology* 94, 739-756.

De Graaf, Anneke, Hans Hoeken, José Sanders & Hans Beentjes, 2009: "The Role of Dimensions of Narrative Engagement in Narrative Persuasion", *Communications: The European Journal of Communication Research* 34 (4), 385-405.

ONOMÁZEIN 57 (September 2022): 120 - 141
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De Koning, Björn B., & Menno van der Schoot, 2013: "Becoming part of the story! Refueling the interest in visualization strategies for reading comprehension", *Educational Psychology Review* 25, 261-287.

De l'Etoile, Shannon K., 2002: "The effect of a musical mood induction procedure on mood state-dependent word retrieval", *Journal of Music Therapy* 39, 145-160.

Dolegui, Arielle S., 2013: "The Impact of Listening to Music on Cognitive Performance", *Student Pulse* 5 (9).

Doyle, Michael S., 1991: "Translation and the space between: Operative parameters of an enterprise" in Mildred Larson (ed.): *Translation:Theory and practice, tension and interdependence*, Binghamton: State University of New York at Binghamton (SUNY), 13-26.

Eerola, Tuomas, Jonna K. Vuoskoski & Hannu Kautiainen (2016). "Being moved by unfamiliar sad music is associated with high empathy", *Frontiers in Psychology* 7, (1176).

Furnham, Adrian, & Kathryn Allass, 1999: "The influence of musical distraction of varying complexity on the cognitive performance of extroverts and introverts", *European Journal of Personality* 13 (1), 27-38.

Furnham, Adrian, & Anna Bradley, 1997: "Music while you work: The differential distraction of background music on the cognitive test performance of introverts and extraverts", *Applied Cognitive Psycology* 11, 445-455.

Furnham, Adrian, & Rebecca Stephenson, 2007: "Musical distracters, personality type and cognitive performance in school children", *Psychology of Music* 35 (1), 403-420.

Gabrielsson, Aalf, & Erik Lindström, 2010: "The Role of Structure in the Musical Expression of Emotions" in Patrik N. Juslin & John A. Sloboda (eds.): *Handbook of Music and Emotion: Theory, Research, Applications*, Oxford: Oxford University Press, 367-400.

Garrido, Sandra, & Emery Schubert, 2011: "Negative emotion in music: What is the attraction? A qualitative study", *Empirical Musicology Review* 6 (4), 214-230.

Gaut, Berys, 2003: "Creativity and Imagination" in Berys Gaut & Paisley Livingston (eds.): *The Creation of Art*, Cambridge, UK: Cambridge University Press, 148-173.

Green, Melanie C., & Timothy C. Brock, 2000: "The role of transportation in the persuasiveness of public narratives", *Journal of Personality and Social Psychology* 79 (5), 701-721.

Green, Melanie C., Timothy C. Brock & Geoff F. Kaufman, 2004: "Understanding Media Enjoyment: The Role of Transportation Into Narrative Worlds", *Communication Theory* 14 (4), 311-327.

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Hallam, Susan, & Carey Godwin, 2015: "Actual and perceived effects of background music on creative writing in the primary classroom", *Psychology of Education Review* 39 (2), 15-21.

Hallam, Susan, & Raymond MacDonald, 2011: "The effects of music in community and educational settings" in S. Hallam, I. Cross & M. Thaut (eds.): *Oxford Handbook of Music Psychology*, Oxford: Oxford University Press, 471-480.

Hallam, Susan, & John Price, 1998: "Can the use of background music improve the behavior and academic performance of children with emotional and behavioural difficulties", *British Journal of Special Education*, 88-91.

Hallam, Susan, John Price & Georgia Katsarou, 2002: "The effect of background music on primary school pupils' task performance", *Educational Studies* 28 (2), 111-122.

Holenderski, Kacper, & Jun Hu, 2013: "Enriching reading experience with dramatic soundtracks", *Advanced Multimedia Technologies* 2 (1), 24-31.

Isen, Alice M., Mitzi M. Johnson, Elisabeth Mertz & Gregory F. Robinson, 1985: "The influence of positive affect on the unusualness of word associations", *Journal of Personality and Social Psychology* 48, 1413-1426.

Jääskeläinen, Riitta, 1996: "Hard Work Will Bear Beautiful Fruit: A Comparison of Two Think-Aloud Protocol Studies", *Meta* 41 (1), 60-74.

Juslin, Patrik N., & Daniel Västfjäll, 2008: "Emotional responses to music: The need to consider underlying mechanisms", *Behavioral and Brain Sciences* 31, 559-575.

Kariuki, Patrick, & Cindy Honeycutt, 1998: "An investigation of the effects of music on two emotionally disturbed students' writing motivations and writing skills", paper presented at the Annual Conference of the Mid-South Research Association, 4-6 November, New Orleans (LA), United States of America.

Keen, Suzanne, 2007: *Empathy and the Novel*, Oxford: Oxford University Press.

Kenealy, Pamela, 1988: "Validation of a music mood induction procedure: Some preliminary findings", *Cognition and Emotion* 2, 41-48.

Kiger, Derrick M., 1989: "Effects of music information load on a reading- comprehension task", *Perceptual and Motor Skills* 69, 531-534.

Kivy, Peter, 1999: "Feeling the musical emotions", *British Journal of Aesthetics* 39, 1-13.

Kozhevnikov, Maria, 2007: "Cognitive Styles in the Context of Modern Psychology: Toward an Integrated Framework of Cognitive Style", *Psychological Bulletin* 133, 464-481.

ONOMÁZEIN 57 (September 2022): 120 - 141
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Kozhevnikov, Maria, Michael Kozhevnikov, Chen J. Yu & Olesya Blazhenkova, 2013: "Creativity, visualization abilities, and visual cognitive style", *British Journal of Educational Psychology* 83 (2), 196-209.

Kruger, Jan-Louis, Maria T. Soto-Sanfiel, Stephen Doherty & Ronny Ibrahim, 2016: "Towards a cognitive audiovisual translatology: subtitles and embodied cognition" in Ricardo Muñoz Martín (ed.): *Reembedding translation process research*, London: John Benjamins Publishing, 71-194.

Kuehnast, Milena, Valentin Wagner, Eugen Wassiliwizky, Thomas Jacobsen, & Winfreid Menninghaus, 2014: "Being Moved: Linguistic Re- presentation and Conceptual Structure", *Frontiers in Psychology* 5 (1242), 1-11.

Kussmaul, Paul, 2000: "Types of creative translating" in Andrew Chesterman, Natividad Gallardo & Yves Gambier (eds.): *Translation in Context. Selected Papers from the EST Congress, Granada 1998*, Amsterdam: John Benjamins, 117-126.

Kussmaul, Paul, 2005: "Translation through Visualization", *META* 50 (2), 378-391.

Kussmaul, Paul, 2010: *Verstehen und Übersetzen. Ein Lehr- und Arbeitsbuch* [Understanding and Translating. A Handbook for Students and Teachers], Tübingen: Narr.

Lavy, Matthew M., 2001: *Emotion and the Experience of Listening to Music A Framework for Empirical Research*. Unpublished doctoral dissertation, University of Cambridge.

Lehr, Caroline, 2013: "Influence of emotion on cognitive processing in translation", paper presented at the Affective Factors in Translation Process Research Online Workshop (Aston University).

Leizerovici, Gail, 2014: *Music and Auditory Transportation: An Investigation of the Music Experience*. Unpublished doctoral dissertation, The University of Western Ontario, London, CA.

Levinson, Jerrold, 1997: "Music and negative emotion" in Jenefer Robinson (ed.): *Music and meaning*, Ithaca, NY: Cornell University Press, 215-241.

Perteghella, Manuela, & Eugenia Loffredo, 2006: *Translation and creativity: Perspectives in Creative Writing and Translation Studies*, London: Continuum.

Mar, Raymond A., Keith Oatley, Justin Mullin & Maja Djikic, 2011: "Emotion and narrative fiction: Interactive influences before, during, and after reading", *Cognition & Emotion* 25 (5), 818-833.

Martín de León, Celia, 2017a: "Mental Imagery in Translation Processes", *Hermes - Journal of Language and Communication in Business* 56, 201-220.

Martín de León, Celia, 2017b: "Mental Representations" in John W. Schwieter & Aline Ferreira (ed.): *The Handbook of Translation and Cognition*, MA/Oxford, England: Wiley-Blackwell, 106-126.

Martín de León, Celia, & Heidrun Witte, 1998: "Imagina (lo) que traduces [Imagine what you translate]" in Pilar Orero (ed.): *III Congrés Internacional sobre Traducció. Actes*, Barcelona: Servei de Publicacions de la Universitat Autònoma de Barcelona, 553-564.

Naranjo, Beatriz, 2018: "Moving Music for Moving Source Texts: the Influence of Emotional Music on Translation Performance", *TCB: Translation, Cognition & Behavior* 1 (2), 319-340.

Naranjo, Beatriz, 2019: "'Mixed feelings' when translating with music", paper presented at the 2nd International Congress on Translation, Interpreting and Cognition Interdisciplinarity: the Way out of the Box (ICTIC 2019), 4-6 July, Germersheim, Germany.

Osborne, John W, 1981: "The mapping of thoughts, emotions, sensations and images as responses to music", *Journal of Mental Imagery* 5, 133-136.

Otis, Laura, 2015: "The value of qualitative research for cognitive literary studies" in Lisa Zunshine (ed.): *The Oxford handbook of cognitive literary studies*, Oxford: Oxford University Press, 505-524.

Palmiero, Massimiliano, Raffaella Nori & Laura Piccardi, 2016: "The relationship between visual creativity and visual mental imagery in aging" in Giovanni B. Moneta & Jekaterina Rogaten (eds.): *Psychology of Creativity: Cognitive, Emotional and Social Processes*, New York: Nova Science Publishers, 69-81.

Pourjalali, Samaneh, E. M. Skrzynecky & James C. Kaufman, 2009: "The creative writer, locus of control, and dysphoric rumination" in Scott B. Kaufman & James C. Kaufman, (eds.): *Psychology of creative writing*, New York: Cambridge University Press, 23-40.

Ransdell, Sarah E., & Lee Gilroy, 2001: "The effects of background music on word processed writing", *Computers in Human Behavior* 17, 141-148.

Rojo López, Ana M., 2017: "The role of creativity" in John W. Schwieter & Aline Ferreira (eds.): *The handbook of translation and cognition*, Malden, MA/Oxford, England: Wiley-Blackwell, 350-368.

Rojo López, Ana M., & Marina Ramos Caro, 2016: "Can emotion stir translation skill? Defining the impact of positive and negative emotions on translation performance" in Ricardo Muñoz Martín (ed.): *Reembedding Translation Process Research, Benjamins Translation Library* 128, 107-130.

Russell, James A., 1980: "A circumplex model of affect", *Journal of Personality and Social Psychology* 39, 1161-1178.

Sadoski, Mark, & Allan Paivio, 2013: *Imagery and text: A dual coding theory of reading and writing*, Oxon: Routledge.

Sandford, Anthony J., & Catherine Emmott, 2012: *Mind, brain and narrative*, Cambridge, UK: Cambridge University Press.

Scharff, Lauren F., & Phuong T. Nguyen, 2003: "A New Test of Music Mood Induction and Mood Congruent Memory", *Abstracts of the Psychonomic Society* 8, 114-115.

Smith, Carol A., & Larry W. Morris, 1977: "Differential effects of stimulative and sedative music anxiety, concentration, and performance", *Psychological Reports* 41, 1047-1053.

Smith, W., 1961: "Effects of industrial music in a work situation requiring complex mental activity", *Psychological Reports* 8, 159-162.

Stanfield, Robert A., & Rolf A. Zwaan, 2001: "The effect of implied orientation derived from verbal context on picture recognition", *Psychological Science* 13, 153-156.

Sternberg, Robert J., & Todd I. Lubart, 1997: *La creatividad en una cultura conformista. Un desafío a las masas* [Defying the Crowd: Cultivating Creativity in a Culture of Conformity], Barcelona: Paidós.

Stokes, Dustin, 2014: "The Role of Imagination in Creativity" in Elliot S. Paul & Scott B. Kaufman (eds.): *The Philosophy of Creativity: New Essays*, Oxford: Oxford University Press, 157-184.

Tan, Siu-Lan, Peter Pfordrescher & Rom Harrè, 2010: *Psychology of Music. From Sound to Significance*, Hove (New York): Psychology Press.

Tellegen, Auke, & Gilbert Atkinson, 1974: "Openness to absorbing and self-altering experiences ("absorption"), a trait related to hypnotic susceptibility", *Journal of Abnormal Psychology* 83 (3), 268-277.

Thompson, Victoria, & Nathan Mutic, 2013: "Analyzing the Effect of Music on Memory in a 21st century learning environment", *The Journal of Experimental Secondary Science* 3 (1).

Tirkkonen-Condit, Sonja, & Johanna Laukkanen, 1996: "Evaluations: a Key Towards Understanding the Affective Dimension of Translational Decisions", *Meta* 41 (1), 45-59.

Varela, Francisco J., Evan T. Thompson & Eleanor Rosch, 1991: *The Embodied Mind: Cognitive Science and Human Experience*, Cambridge, MA: The MIT Press.

Västfjäll, Daniel, 2002: "A review of the musical mood induction procedure", *Musicae Scientiae* 5 (1), 173-211.

Velten, Emmett, 1968: "A laboratory task for induction of mood states", *Behaviour Research and Therapy* 6, 473-482.

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Vroegh, Thijs, 2012: "Transported to Narrative Worlds: The Effects of A Narrative Mode of Listening on Music Perception" in by Emilios Cambouropoulos, Costas Tsougras, Panayotis Mavromatis & Costas Pastiadis (eds.): *Proceedings of the 12th ICMPC/ 8th ESCOM Conference*, Thessaloniki: Aristotle University of Thessaloniki, 1104-1105.

Vuoskoski, Jonna K., & Tuomas Eerola, 2012: "Can sad music really make you sad? Indirect measures of affective states induced by music and autobiographical memories", *Psychology of Aesthetics, Creativity, and the Arts* 6 (3), 204-213.

Ward, Thomas B., Steven M. Smith & Ronald Finke, 1999: "Creative cognition" in Robert J. Sternberg (ed.): *Handbook of Creativity*, New York: Cambridge University Press, 189-212.

Wassiliwizky, Eugen, Valentin Wagner, Thomas Jacobsen & Wienfried Mennninghaus, 2015: "Art-elicited chills indicate states of being moved", *Psychology of Aesthetics, Creativity, and the Arts* 9 (4), 405-416.

Wheeler, Barbara L, 1985: "Relationship of personal characteristics to mood", *Psychology of Music* 13, 81-92.

Wolf, Werner, 2007: "Descriptions as a Transmedial Mode of Representation: General Features and Possibilities of Realization in Painting, Fiction and Music" in Werner Wolf & Walter Bernhart (eds.): *Descriptions in Literature and Other Media*, Amsterdam: Rodopi, 1-90.

Zentner, Marcel, Didier Grandjean & Klaus R. Scherer, 2008: "Emotions evoked by the sound of music: Characterization, classification, and measurement", *Emotion* 8, 494-521.

Zwaan, Rolf A., Robert A. Stanfield & Richard H. Yaxley, 2002: "Language comprehenders mentally represent the shapes of objects", *Psychological Science* 13, 168-171.