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The Role of Emotion in the Translation Process from the Perspective of Embodied Cognition

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Abstract

Do different emotions produce different emotionally oriented translations in people's translation practice? The study of embodied cognition theory reveals that the process of generating emotions through the auditory perception of music is a form of embodied expression that the generation and change of emotions have a certain influence on the translation practice of translators, and that different emotional changes can lead to different translation results. In this paper, we utilize embodied cognitive theory to design an experiment in which a total of 20 participants evaluated the emotion of the original English text by administering a questionnaire to assess the emotion of the original English text on a five-point scale. The 60 participants were then divided into two groups of 30 participants each, and the same English text was translated by listening to two different emotionally oriented music, "Golden Snake Dance" and "The Moon Over a Fountain", and translating the same English text, the resulting 60 translations were analyzed for their emotional values by using the ROST software, and based on the results, a comparative analysis of the two experiments was carried out, which revealed that the two groups of completed translations showed different emotional orientations and that the emotional values produced a great difference between positive and negative values, which further demonstrates the influence of emotions on translation practice. The process of perceiving emotional changes through the use of the auditory system is actually embodied, which can not only be reflected in daily behavioral performance, but can also be applied to translation practice. The difference in emotional states will directly lead to translations produced by translation practice, which display differences in the emotional orientation of translations under the effect of different emotions, providing a new way of thinking for translators to study translations of the same English original text that generate multiple emotional understandings, and promoting the development of diversity in translation research.

Keywords

Embodied Cognition, Embodiment, Translation Practice, Emotion, Experiment

1. Introduction

Do different emotions produce different emotionally oriented translations in people's translation practice? When people hear different music, do they develop different emotions? When a person uses their sense of hearing, they are not only taking in information, but also bringing about a series of knock-on effects, such as an emotional state that may be compromised, from being in a positive emotional state to being instantly calm, or suddenly becoming exuberant and motivated on an ordinary afternoon. The phenomenology of sound is also embodied and has a direct impact on the psychological experience of the human body. It is commonly believed that what you see is what you get and that it is the visual sensory experience that actually causes a change in mood, but this is not the case, as the auditory system conveys abstract but direct information to the human brain, similarly to visual communication, which also affects the emotional changes in humans. Through the study of embodied cognitive theory, the embodied character of sound phenomenology can be adapted not only to the everyday expression of emotions but also to the study of translators of the same original English text, which generates different and diverse translations, i.e. the differences in emotional states will directly lead to the same differences in the emotions presented in the translation. This study investigates the impact of changes in emotion on the affective orientation of a translation of the same original English text through listening to music with different affective orientations, by designing a specific experiment based on the conceptual qualities of the perceptual dimension of embodied cognition theory.

1.1. Research Backgrounds

In recent years, the use of emotion as an entry point for translation research has become a hot research topic in the field of translation. Although a theoretical term has not yet been proposed, the current research trend shows that the results are already beginning to emerge, and more and more people are recognizing its validity. In the current post-cognitivist era, "embodied cognition" has become a focal point, representing a new trend in cognitive psychology research. The physical experience of "embodiment" is inextricably linked to the subjective emotional experience of the subject, and while people focus on the emotional experience of translation, they are also searching for the "carrier" that generates it. Whether such a "carrier" can be a physical experience with "embodiment" is worth investigating.

People generally attribute their psychological experiences to "personal experiences", but in fact, this is a very general and abstract definition, as personal

emotions not only exist in the visual impact of what the eyes see and the tactile experience of being able to touch but can also be influenced by the sense of hearing, and emotions are influenced to trigger behavioral actions under the influence of different emotions. This is the basic theoretical reason why emotions act in translation practice.

1.2. Aims and Significance of the Research

The Translation is not an "emotion-free activity" that remains at the level of words. This study introduces the association between emotional translation and emotion, and uses embodied cognitive theory to investigate whether different emotionally oriented translations are produced when the translator's emotional state changes in translation practice, in order to demonstrate the impact of emotion on translation practice.

1.3. Structure of the Thesis

This thesis consists of four main parts: the first part is an introduction to the background of the study, the purpose and significance of the study, and the research methodology; the second part is an introduction to the theoretical background of the relevance of emotion translation to emotion, embodied cognitive theory, and the role of listening to emotion translation; the third part is the experimental design, which includes the experimental hypothesis, variables and analysis criteria, the experimental participants, and the experimental results and analysis; the fourth part is the findings of the study, including the findings, limitations, and suggestions for the subsequent development of the research area.

1.4. Research Methods

The study adopts a combination of theoretical analysis and experimental supporting methodologies. In this experiment, a control method was applied so as to identify whether the variables in the experiment made an impact in this experiment. It also provides for consistency in the amount of data between the two groups, thus controlling for the single effect that the variables have on the results of the experiment. A separate group was set up for this experiment to provide a prerequisite for the two groups that needed to be controlled.

2. Literature Review

2.1. Translation in Emotion and Emotional Relevance

The responsibility of the translator is to understand the emotional climate of the original text and to try to "recreate" a high level of domain using individual empathy. The transfer of emotion involved here is an important link between the author and the reader. Newmark's view of translation coincides with this view, as he expresses in "Approaches to Translation", in which he states that the translator's fidelity belongs to the artist, whose duty it is to concentrate on creating his own work of art (Newmark, 2001). According to Newmark, this kind of in-

teractive translation tries to achieve for the reader as close as possible to what the author of the original intended, and semantic translation is the technique of translation itself, i.e., the rendering of the semantic and syntactic structures of the second language as accurately as possible. semantic translation is the technique of translation itself, i.e., the rendering of the semantic and syntactic structures of the second language in as precise a context as possible (Xu, 2012). The understanding of emotions is not only at the "visual" level but also at the "auditory" level, which has a positive or negative impact on the emotions of the individual, thus influencing the multi-emotional transformation of the translation process in many ways.

2.1.1. Emotion Categorization Theory Principles

The development of social media has inspired the daily manifestation of many verbal texts throughout our daily lives. In today's pan-entertainment world, the development of new media is an inescapable reality, with all kinds of textual information dominating in a wrap-around fashion, influencing changes in mood. Information hedging is fatal to human emotional perception and emotional mutation in an internet environment. A subjective approach to understanding the categorization of emotions is also essential to proactively explore changes in human emotions.

The French philosopher Descartes' theory of emotions suggests that human primitive emotions are divided into surprise, happiness, hate, desire, joy and sorrow, and that all other emotions are branches or combinations of these six primitive emotions (Li, 2018). Ekman, an American psychologist, proposed a basic emotion theory, which suggests that the basic emotions include joy, sadness, anger, fear, disgust and surprise, because these six emotions can be identified by facial expressions and physiological processes (such as increased heart rate and sweating), so these emotions are considered more basic than the others (Ekman, 1992). On this basis, the American psychologist Plutchik proposed a multidimensional model of emotion based on an integrated theory of evolutionary rules, which defines eight basic bidirectional emotions, including Ekman's six emotions as well as trust, and anticipation. Can be divided into four bidirectional pairs: joy vs. sadness, anger vs. fear, trust vs. disgust, and surprise vs. anticipation (Plutchik, 2001).

As people publish and disseminate language on the Internet, the emotional orientation is also silently embedded in their brains and transformed into behavioral representations that are used in translation practice. This is also the reason why different people interpret the same text differently and translate it with different emotional styles. Rationalizing the categorization of emotions is not only a superficial way of recognizing the differences in emotions from a psychological perspective but can also be used in translation practice to pinpoint the emotional characteristics and translation groups required for a text, bringing a convenient way of thinking about the accuracy of bilingual information dissemination and information interaction.

2.1.2. Emotional Vocabulary in the Translation Process

A large amount of textual information acts as a minimal unit task for everyday people to process, people receive and produce emotions, and in the face of a concentrated state of presentation of emotional vocabulary, as in literary texts, analyzing emotional vocabulary is a necessary option for the processing of translation tasks. The concept of implicit translation initiation proposed by Lu Bo "points out that words in a second language are phonetically related when translated into native words, and through this paradigm, the characteristics of second foreign language and native language translation can be explored. By adding an emotional element to this paradigm, such as the use of words with an emotional meaning, the influence of emotional information on the bilingual transformation process can be studied." (Lv, Zhang, Chen, 2014).

While advocating direct translation at the linguistic level, Li Navy emphasizes in the category of emotional vocabulary that translators also usually employ the corresponding adjectives or verbs to translate directly, that is, they strive to be completely faithful to the original (Li, 2014). This is more direct and efficient for the understanding of emotional vocabulary, but there is also a risk of misunderstanding and lack of understanding when faced with cultural differences between the two languages. In addition, emotional vocabulary can also be perfectly reproduced through augmented and subtracted translations and diverse translations to convey emotions, and a variety of approaches are perfect for conveying emotions faithfully and accurately in the original language (Zhang, 2015).

2.2. Embodied Cognitive Theory

The perception of bodily behavior is a continuous process of exploration, and "embodied cognition" arises when it is discovered that emotions are not the dominant agent of behavior, that is, there is not just a single order in which emotions dominate behavior, but that there are specific physical experiences that can also influence people's mental states.

2.2.1. Cognitivism and Embodied Cognition

Cognitive psychology has been a dominant research theme in Western psychology since the 1960s. In contrast to behaviorism, the symbolic processing model, based on computer simulations, and the connectionist model, based on the structure of neural networks and the principles of parallel processing, embodied a shift in the center of research towards internal mental processes, i.e., the search for cognitive mechanisms that regulate behavior, and "cognitivism" came into being. But it did not last long, as it led to a change in cognitive psychology following the rise of robotics, cognitive linguistics, philosophy, cultural anthropology, artificial intelligence, and other disciplines, also known as "post-cognitivism". Cognitive psychology, as a unification of cognitive science and psychology, has attempted to take the experience as a starting point for research, as in fact, every human subject has a wealth of experience with the subject, but it has not been theorized and systematized until now, and the relevance of science and psychol-

ogy has been a breakthrough for research. Embodied cognition theory can be described as a science of consciousness that explores the interrelationship between physical and psychological experience, yet some scholars may find more support in phenomenology, metaphysics, and methodology, from Husserl's "intentionality", Heidegger's "dasein" and Merleau-Ponty's "la chair" to dissipate "Cartesian anxiety" (Chen, Yin, & Zhang, 2021). These shifts in phenomenological cognitive thought laid a solid foundation for the establishment of an epistemological turn and paradigm for embodied cognition. It was a model for the further development of embodied cognition theory and its breakthrough in science and psychology.

2.2.2. Emotions in the Embodied View

The complexity of human emotions is not simply controlled at the level of the neural network system, which is certainly crucial as a terminal point for the production of both external and internal emotions. The idea of the embodied nature of emotion generation can be traced back to the "James-Lange theory of emotion" developed by James and Lange. In this theory, emotions were considered to be a "perceptual sensation" of changes in the individual's own body. The peripheral theory of emotion was the first to demonstrate the close connection between the body and emotions. Later, Tomkins, Izard, and Zajonc et al. proposed the facial feedback hypothesis, and Damasio the somatic marker hypothesis. The idea of the embodied nature of emotions (Liu, Wang, & Kong, 2011). Although these arguments do not theorize the concept of embodiment, as there is not a long history of research on embodied cognition, the emphasis on the body's key role in the processing of emotions is a clear manifestation of the embodiment of emotions. Similarly, the embodied nature of emotion itself coincides with the emergence of our human emotions, which are transformed by specific physical experiences that we experience all the time but are always hidden and not always visible.

Individuals' perceptions are affected by emotions based on the physical body and attempts to manipulate the physical body or to produce changes in the physical state by means of external forces will also cause such effects to undergo their corresponding emotional changes, which is a clear manifestation of the embodied perspective (Liu, Wang, & Kong, 2011). This is also true in the field of translation, where the process of translation is subject to changes in physiological experience, which will to some extent lead to a tendency to bias the emotional content of the translated text.

2.2.3. The Perceptual Dimension in the Embodiment Concept

The creation of phenomenology, in reality, is more of a philosophy of communication media, that is, what Husserl considered to be the mere perception of the world as a world of being, through the method of suspension (Epoché) as a major methodological step thus eliminating the setting of being and succeeding in making the perceptible communicability of the world hidden in everyday per-

ceptions aware to human beings, that is, from consciousness to the world of perception. In other words, the world on which we rely for our perceptions. In other words, it is through the figurative effect of this consciousness that the world we live in becomes clearer in the application of communication media to the act of communication (Friedrich, 2022).

The main difference between human thinking and that of other animals is that human beings have abstract thinking, which in fact evolves from figurative thinking (Yaacov & Nira, 2010). There are two dimensions of embodiment, perception, and culture, and the phenomenologist Merleau-Ponty has a deep knowledge and understanding of the phenomenology of the perceptual dimension. We use our bodies to perceive the whole world, so the body is a human subject in a state of nature, and a subject of perception. The close relationship between human beings and modern technology is not only reflected in their use of modern technology but also in the emotional impact of modern technology, reflecting the close connection between the perceptual dimension and embodied cognitive theory.

Prinz argues that our perception of the body includes not only the perception of changes in the body's organs and limbs but also the perception of the environment in which the body is located and that the relationship between the body and the environment is also represented in the brain (Liu, Wang, & Kong, 2011). Thus, the specific source of action intended by the broader term environment can be bodily perception, which facilitates and stimulates the functioning of the brain. However, when considering the specific manifestations of perception, people often ignore the auditory sense and default to the visual sense, the tactile sense, or the olfactory sense, etc. They know how to define the scope of perception, but they often overlook it in their thinking. The phenomenological community knows how to define and think about such "phenomena", but in practice, it defaults to vision as the focus of the perceptual dimension (Wang, 2022). Auditory and visual senses actually emerged almost simultaneously but sequentially, as fetal movements could be heard and felt even before the formation of the retina and while people were still in the gestational stage, and in my opinion the origin of perception is auditory rather than visual.

2.3. Research on the Function of Perceptual Dimensions on Translation in Emotion

The process of translation practice, influenced by emotions, is full of possibilities, which do not pose much difficulty or challenge for communication in the intercultural sphere, because emotions as a model of embodied cognition, although there are certain cultural differences, are common emotions such as joy, sadness, anger, fear, surprise and disgust, elements and structures that have cross-cultural coherence and act as a basis for mutual understanding and communication between different These elements and structures are cross-culturally consistent and serve as a basis for understanding and communication between different peoples, thanks to the more consistent bodily responses of human beings

and the experience of these physical responses (Barrett, Lewis, & Haviland-Jones, 2016).

Physical experience plays a crucial role in the understanding of language, as every time we interact with the world, a response like this physical experience is generated, so that later, if we encounter the same situation again, the traces of this response are activated, in other words, human understanding of concepts and language is based on the activation of the experience of traces (Zwaan & Madden, 2005). Perhaps this coincides with Freud's "theory of the subconscious", where the fragmented "preconscious" constitutes our memory of past experiences and thus facilitates the reorganization and construction of the experience when we encounter the same situation again, but in any case, the physical The emotional stimulus of experience is profound and long-lasting, contributing to the diversity and complexity of translation studies, as humans use language to understand and perceive things beyond the subjective mind alone, and external stimuli such as bodily experience translate the physical properties contained outside into mental events, of which sound is one manifestation. Through the auditory system, we perceive sound, which contributes to emotional shifts, which in turn affects the way translators write translations that show different emotions.

Music is the art of emotional representation, the art of non-symbolic representation. There is a natural and close connection between the body and music, and the behavioral changes that accompany the music, such as changes in expression, are the body's instinctive response to music itself, a response that transcends cultural conformity (Lv, 2022). At the same time, the healing function of music as a vehicle for the auditory dimension of phenomenology is an argument for the profound impact of the embodied nature of hearing on the psychological experience of human physical experience. Music therapy as a separate therapeutic discipline uses various forms of musical experience (including singing, dancing, instrumental music, etc.), along with the pleasure of the music itself, to stimulate new, positive emotional experiences, thereby re-evaluating events and constructing a virtuous circle (Xia & Yu, 2018). This kind of evaluation, which changes the emotional experience of human beings through listening, has also been very effective in the field of translation.

3. Research Design

The embodied nature of the phenomenology of sound opens up new possibilities for the study of emotion in the field of translation. Based on the conceptual qualities of the perceptual dimension of embodied cognitive theory, the experiment will explore the impact of changes in emotion on the emotion of the translated text by translating the same English text after listening to music with different emotional orientations.

3.1. Hypothesis

The experiment was controlled in order to identify whether the variables in the

experiment played a role in this experiment. At the same time, the consistency of the amount of data between the two groups was specified, thus controlling for the single effect that the variables had on the results of the experiment. A separate group was set up for this experiment to provide a prerequisite for the two groups that needed to be controlled.

3.2. Variables and Analysis Criteria

The experimental variables were two types of pure music that differed significantly in their emotional expression: "Golden Snake Dance" (positive orientation) and "The Moon Over a Fountain" (negative orientation).

To analyze the sentiment of the translation, emotion values were measured using sentiment analysis in the ROST Content Mining System software.

3.3. Material

Utilizing two pieces of music with positive and negative emotional factors as variables to regulate the emotional state before translation, the subjects listened to the music and then translated the English text. The English texts were "My husband and I stood in the house as the memories of the past came back into our mind. We walked together to the living room, which was covered with traces of twenty years of married life. Seeing them reminded us of so many things from the past, and we were thinking about the future. At that moment, the sound of birds chirping outside the window crossed the room and stayed for a long time".

3.4. Participants

In the pre-experimental preparation session, a total of 20 English language learners rated the affective value of the original English text using a five-point Likert scale, with five evaluation scores for emotions: 1) very positive, 2) positive, 3) neutral, 4) negative and 5) very negative.

Prior to the start of the experiment, each group of 30 English language learners was informed of the need to be in a relatively quiet and undisturbed environment during the experiment.

The experiment was conducted separately for each of the two groups at the official start. The first part of the experiment required everyone to take three deep breaths before starting, in order to be absolutely relaxed and to guarantee the objective accuracy of the results. The next step was to play different music tracks, namely "Golden Snake Dance" and "The Moon Over a Fountain", in order to feel the emotion of the music. In the second part of the experiment, the experimenter presented the original English text and a part of the translated text. The untranslated part of the text contained the translator's underlying emotional understanding, so everyone was asked to complete the four missing parts of the translation, and 60 people added as many words as they could, according to their understanding of the meaning of the English text. The experiment came to the end of this step.

3.5. Results

The experiment revealed that the 20 English language learners scored 6 out of 2, 9 out of 3 and 5 out of 4 on the emotional value of the original English text. In the experiment of listening to the music followed by translation, the group listening to "Golden Snake Dance" created translations that were "beautiful", "happy", and "bright" in tone. The moods of 28 people had a positive average value for the whole translation. The group listening to "The Moon Over a Fountain" created translations that were "sad", "painful", and "confused" in tone, and all 30 had a negative average emotional value for the entire translation.

4. Findings and Discussions

4.1. Original English Text Scores

Regarding the neutral-emotion English text prepared for the experiment, a total of 20 English language learners scored the emotional value of the text. According to the results of the experiment presented in Figure 1, the 20 English language

No.	Codename	1 Very negative	2 Negative	3 Neutral	4 Positive	5 Very positive	Total points	Deviation
1	WJH			3			3	0.05
2	BYY				4		4	1.05
3	CK			3			3	0.05
4	THS				4		4	1.05
5	LJH			3			3	0.05
6	ZPZ				4		4	1.05
7	GQW		2				2	0.95
8	HXX			3			3	0.05
9	MYX		2				2	0.95
10	XMQ		2				2	0.95
11	YTQ				4		4	1.05
12	WDJ			3			3	0.05
13	LZS		2				2	0.95
14	FW		2				2	0.95
15	LZX			3			3	0.05
16	HLJ			3			3	0.05
17	YYH			3			3	0.05
18	SJC				4		4	1.05
19	YLF			3			3	0.05
20	LKD		2				2	0.95

Figure 1. English text scoring results.

learners did not give consistent scores, but this does not mean that the selected texts were emotionally uncertain. The reason for the inconsistency of the scores is largely since different individuals interpret the emotion of the text differently, so a data-based analysis of the results of the scoring would provide a more objective analysis of the emotional outcome of this text.

According to statistical calculations, we found that the average of the scores given by the 20 people was 2.95, (Figure 2) which is close to 3 (neutral) but slightly more towards 2, i.e., negative emotions, but not very much, or almost nothing, so this is very consistent with what was expected at the beginning of the experiment, and it is inevitable that a fully accurate score of 3 is not reached. The neutral text itself has certain peculiarities, it is neither positive nor negative, it is one of the most elusive types of text, and its emotional value fluctuates, so it is inevitable that there is a score difference.

In plotting the histogram of the sentiment scores, which is presented in Figure 3, we can visually see that the scores of the 20 people are relatively concentrated and there is no scattered distribution of the scores, which also demonstrates that people, in general, have a more concentrated perception of the sentiment value of this text, which is welcome for our experiment, since it means that the next experiment has the potential to go well. I have emphasized that the tendency of the English text to be emotionally neutral is the first essential prerequisite for the whole experiment. Although the neutrality of the emotion value is not an inevitable choice to confirm the predicted results, the appeal of a neutral text is that it creates a more objective and fairer environment for the output of the emotional value of the subsequent "listening-translating" experiment.

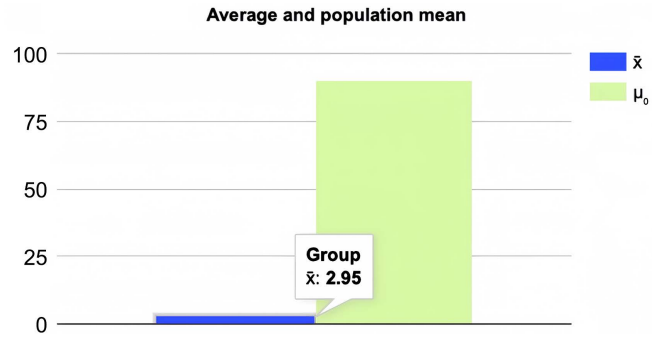

Figure 2. Average of scoring results.

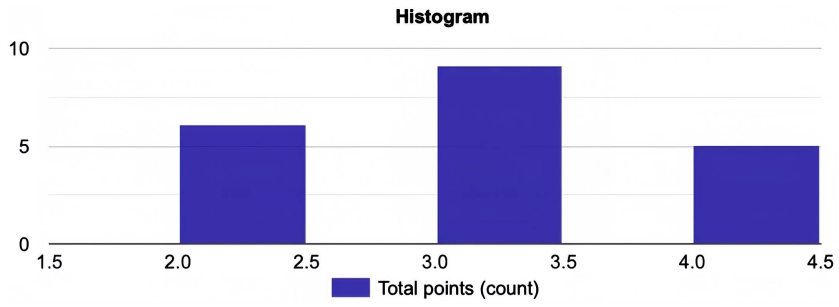

Figure 3. Bar chart of scores.

4.2. Emotional Values for the Two Groups of Translation

In the main experiment, there were two groups of 30 English language learners in each group, and because the music chosen at the beginning was Chinese folk music with two mood ranges, namely "Golden Snake Dance" (positive orientation) and "The Moon Over a Fountain" (negative orientation), so no other variables were set to affect the presentation of the results in these two groups of 30 people each. We know that the healing properties of music are obvious and that the use of systematic interventions to make the experience of music therapy more holistic is the most basic expression of the emotional impact that music can bring to human beings.

The American ethnomusicologist Frances Densmore's Teton Sioux Music and her knowledge and fieldwork on American Indians were among the earliest ethnomusicological studies of the twentieth century, and her involvement in the rescue and recording of American Indian music, including various ritual and therapeutic repertoire, provides the most authentic perspective on music in therapeutic practice. authentic perspective on music in therapeutic practice (Thorne, 1999). The first section of Golden Snake Dance is characterized by a bright, up-tempo, joyful, and exuberant mood. The second section, with its two bars of percussion, leads to a more enthusiastic and lively melody. The third stanza is a clever reference to the "screw knot top" structure of the folk drums. The upper and lower stanzas echo each other, the length of the stanza decreases layer by layer, and the tempo gradually increases, together with the rhythm of gongs, drums, cymbals, wooden fish, and other percussion instruments, so that the emotion rises layer by layer until the climax of the joyous and red-hot scene (Liu, 2014). The main melody of "The Moon Over a Fountain" is full of melancholy. The introduction of the piece is like a long sigh, full of helplessness about the situation and the current situation, from the highest note down to the lowest, bringing the emotions into a sad mood (Tong, Zeng, & Li, 2020). The shift from "anger" to "sadness" brings a sense of enhancement to the change in emotional attitude at the end of the music.

The emotional difference between the two groups is evident from the comparison of the keywords, **Figure 4** shows the group listening to "Golden Snake Dance" in the first session, and **Figure 5** shows the group listening to "The Moon Over a Fountain" in the first session. The sentiment values were measured using sentiment analysis in the ROST Content Mining System software, which allowed for a concrete analysis of the data.

According to the translations made by 60 English language learners after listening to two pieces of music, we can see from the histogram (**Figure 6**) of the distribution of the sentiment values of the two groups of data that there is a clear difference in the sentiment values of the translation results between the two groups of experimenters, and we can also see that the two groups of data have a more concentrated distribution and different values, even showing a clear difference between positive and negative values, which further indicates that the

two groups set The ROST Content Mining System, a social computing platform developed and coded by Professor Shen Yang of Wuhan University to assist in humanities and social science research, can achieve a variety of text analysis functions, including sentiment analysis. The use of this software for sentiment analysis of Chinese translated texts also aims to establish a unified system of analysis criteria to promote objectivity in the evaluation of experimental translated texts and thus to provide concrete arguments with objective data to support the rationality of this experiment. Listening to the positively oriented music before translation practice, that is to say, the sentiment values of the translated text as a result of Golden Snake Dance, were overwhelmingly positive and concentrated. The post-translation sentiment values resulting from listening to negatively oriented music before translation practice, that is to say, The Moon Over a Fountain, were overwhelmingly negative and concentrated.

No.	Group P	First sentence	Emotional values	Second sentence	Emotional values	Third sentence	Emotional values	Fourth sentence	Emotional values	Average
1	WJ	美好 like brow in English	9	琐碎 like trivial in English	−13	光明 like luciferous in English	9	快乐 like happy in English	8.4	3.35
2	WYM	美好 like brow in English	9	快乐 like happy in English	2	未知 like unknown in English	−3	清脆 like ringing in English	6.4	3.6
3	GJY	美好 like brow in English	9	幸福 like felicific in English	9	快乐 like happy in English	9	欢快 like lively in English	8.4	8.85
4	SYT	幸福 like felicific in English	16	热闹 like busy in English	−1	繁琐 like fussy in English	−5	聒噪 like noisy in English	−12.6	−0.65
5	SMX	美好 like brow in English	9	快乐 like happy in English	2	快乐 like happy in English	9	快乐 like happy in English	8.4	7.1
6	LQX	甜蜜 like sweet in English	11	幸福 like felicific in English	9	迷茫 like confused in English	−9	欢快 like lively in English	8.4	4.85
7	LWT	喜悦 like charmed in English	10	幸福 like felicific in English	9	令人期待 like luciferous in English	8	欢快 like lively in English	8.4	8.85
8	ZYC	欢欣 like elevated in English	8	平淡 like flat in English	−12	无限可能 like luciferous in English	0	叽叽喳喳 like noisy in English	−0.6	−1.15
9	FZX	幸福 like felicific in English	16	欢欣 like elevated in English	1	迷茫 like confused in English	−9	欢快 like lively in English	8.4	4.1
10	MYF	美好 like brow in English	9	温馨 like cozy in English	1	未知 like unknown in English	−3	欢快 like lively in English	8.4	3.85
11	LMH	甜蜜 like sweet in English	11	幸福 like felicific in English	9	美好 like brow in English	9	清脆 like ringing in English	6.4	8.85
12	ZQY	美好 like brow in English	9	甜蜜 like sweet in English	4	充满希望 like hopeful in English	3	愉悦 like joyful in English	7.4	5.85
13	YBW	幸福 like felicific in English	16	美好 like brow in English	2	明亮 like luciferous in English	9	轻快 like agile in English	5.4	8.1
14	JRH	美好 like brow in English	9	美好 like brow in English	2	美好 like brow in English	9	动听 like joyful in English	8.4	7.1
15	HYN	有趣 like entertaining in English	7	琐碎 like trivial in English	−13	安定 like settled in English	5	清脆 like ringing in English	6.4	1.35
16	WY	幸福 like felicific in English	16	朴实无华 like unpretentious in English	0	幸福 like felicific in English	16	欢快 like lively in English	8.4	10.1
17	MYH	欢乐 like joyous in English	10	幸福 like felicific in English	9	充满希望 like luciferous in English	3	喜悦 like joyful in English	9.4	7.85
18	LYN	美好 like brow in English	9	幸福 like felicific in English	9	迷茫 like confused in English	−9	清脆 like ringing in English	6.4	3.85
19	PKX	甜蜜 like sweet in English	11	幸福 like felicific in English	9	光明 like luciferous in English	9	叽叽喳喳 like noisy in English	−0.6	7.1
20	MCT	甜蜜 like sweet in English	11	温暖 like warm in English	0	无限可能 like luciferous in English	0	悦耳 like joyful in English	6.4	4.35
21	ZZX	共沐风雨 like gathering in English	0	温暖平淡 like warm and bland in English	−5	家庭美满 like family with happiness in English	12	婉转悠扬 like melodious in English	17.4	6.1
22	CYL	幸福 like felicific in English	16	吵闹 like noisy in English	−19	令人憧憬 like luciferous in English	8	激动 like excited in English	8.4	3.35
23	MRC	美好 like brow in English	9	难忘 like memorable in English	−1	迷茫 like confused in English	−9	欢快 like lively in English	8.4	1.85
24	JTX	温暖 like warm in English	7	温馨 like cozy in English	1	富有希望 like luciferous in English	13	欢快 like lively in English	8.4	7.35
25	SRY	幸福 like felicific in English	16	幸福 like felicific in English	9	积极 like positive in English	11	叽叽喳喳 like noisy in English	−0.6	8.85
26	ZZY	欢快 like lively in English	9	丰富多彩 like colorful in English	3	模糊 like blurry in English	−4	悦耳 like joyful in English	6.4	3.6
27	MYX	美好 like brow in English	9	平凡普通 like ordinary in English	1	迷茫 like confused in English	−9	悦耳 like joyful in English	6.4	1.85
28	ZXY	难忘 like memorable in English	6	美好 like brow in English	2	理想 like luciferous in English	8	欢快 like lively in English	8.4	6.1
29	ZKY	温暖 like warm in English	7	幸福 like felicific in English	9	未知 like unknown in English	−3	轻快 like agile in English	5.4	4.6
30	ZYQ	美好 like brow in English	9	温馨 like cozy in English	1	光明 like luciferous in English	9	清脆 like ringing in English	6.4	6.35

Figure 4. Emotional keywords and emotional values for the group listening to the translation of "Golden Snake Dance".

No.	Group N	First sentence	Emotional values	Second sentence	Emotional values	Third sentence	Emotional values	Fourth sentence	Emotional values	Average
1	WCY	悲伤 like sorrow in English	−13	吵吵闹闹 like noisy in English	−18	迷茫 like confused in English	−9	叽叽喳喳 like noisy in English	−0.6	−10.15
2	WSH	苦涩 like saline in English	−10	压抑 like inhibition in English	−16	望不到尽头 like unknown in English	0	凄厉 like shrill in English	−9.6	−8.9
3	ZYT	艰苦 like tough in English	−11	历尽沧桑 like experienced in English	−12	安稳平淡 like calm and dull in English	4	熙熙攘攘 the hustle and bustle of large crowds	7.4	−2.9
4	DDD	悲伤 like sorrow in English	−13	不舍 like loath in English	−7	迷茫 like confused in English	−9	难过 like sorrow in English	−9.6	−9.65
5	SCY	复杂 like complicated in English	−4	矛盾 like contradictory in English	−15	迷茫 like confused in English	−9	断断续续 like on and off in English	−0.6	−7.15
6	ZZH	伤痛 like painful in English	−15	繁琐 like fussy in English	−12	未知 like unknown in English	−3	凄厉 like shrill in English	−9.6	−9.9
7	MTZ	痛苦 like painful in English	−11	迷茫 like confused in English	−16	迷茫 like confused in English	−9	欢快 like lively in English	8.4	−6.9
8	FYF	悲痛 like painful in English	−13	无奈 like helpless in English	−13	迷惘 like confused in English	−12	悲怆 like miserable in English	−13.6	−12.9
9	TJX	凄惨 like miserable in English	−12	相依为命 like gathering in English	−13	未知 like unknown in English	−3	刺耳 like shrill in English	−3.6	−7.9
10	LXN	痛苦 like painful in English	−11	琐碎 like trivial in English	−13	孤独 like lonely in English	−6	尖锐 like shrill in English	−6.6	−9.15
11	LHF	心酸 like poignant in English	−8	名存实亡 like exist in name only in English	−7	不知何去何从 like unknown in English	0	悲切 like miserable in English	−15.6	−7.65
12	GRH	悲伤 like sorrow in English	−13	失败 like lose in English	−17	迷茫 like confused in English	−9	凄凉 like miserable in English	−9.6	−12.15
13	WN	复杂 like complicated in English	−4	心酸 like poignant in English	−15	迷茫 like confused in English	−9	轻松 like easy in English	6.4	−5.4
14	ZH	悲伤 like sorrow in English	−13	百感交集 like contradictory in English	−4	了无希望 like unknown in English	−2.4	忧伤 like sorrow in English	−11.6	−7.75
15	CZX	痛苦 like painful in English	−11	痛苦 like painful in English	−18	迷茫 like confused in English	−9	喧闹 like noisy in English	−5.6	−10.9
16	BXH	悲惨 like miserable in English	−13	鸡毛蒜皮 like trifles in English	−14	孤独 like lonely in English	−6	烦人 like noisy in English	−5.6	−9.65
17	ZRY	悲伤 like sorrow in English	−13	痛苦 like painful in English	−18	迷茫 like confused in English	−9	刺耳 like shrill in English	−3.6	−10.9
18	ZXN	复杂 like complicated in English	−4	琐碎 like trivial in English	−13	孤独 like lonely in English	−6	叽叽喳喳 like noisy in English	−0.6	−5.9
19	TXY	凄惨 like miserable in English	−12	相依为命 like gathering in English	−13	迷茫 like confused in English	−9	刺耳 like shrill in English	−3.6	−9.4
20	YYL	悲伤 like sorrow in English	−13	酸甜苦辣 like joys and sorrows in English	−7	迷茫 like confused in English	−9	凄凉 like miserable in English	−9.6	−9.65
21	SFY	悲伤 like sorrow in English	−13	不幸 like misfortune in English	−15	未知 like unknown in English	−3	凄惨 like miserable in English	−12.6	−10.9
22	GYW	悲伤 like sorrow in English	−13	痛苦 like painful in English	−18	迷茫 like confused in English	−9	凄厉 like shrill in English	−9.6	−12.4
23	WYQ	哀伤 like sorrow in English	−15	失败 like lose in English	−17	孤独 like lonely in English	−6	尖锐 like shrill in English	−6.6	−11.15
24	WJX	孤苦无依 like lonely in English	7	满目疮痍 like devastated in English	−17	日薄西山 like nearing one's ends in English	−18	声嘶力竭 like shrill in English	−12.6	−10.15
25	WHX	痛苦 like painful in English	−11	悲凉 like miserable in English	−19	分离 like separate in English	0	凄厉 like shrill in English	−9.6	−9.9
26	LXN	痛苦 like painful in English	−11	不幸 like misfortune in English	−15	迷茫 like confused in English	−9	惊惧 like shrill in English	−11.6	−11.65
27	XX	悲伤 like sorrow in English	−13	痛苦 like painful in English	−18	孤独 like lonely in English	−6	刺耳 like shrill in English	−3.6	−10.15
28	WZC	心酸 like poignant in English	−8	酸甜苦辣 like joys and sorrows in English	−7	平淡 like flat in English	−5	乱糟糟 like noisy in English	−8.6	−7.15
29	LJY	痛苦 like painful in English	−11	琐碎 like trivial in English	−13	迷茫 like confused in English	−9	尖锐 like shrill in English	−6.6	−9.9
30	JRH	伤感 like sorrow in English	−10	悲惨 like miserable in English	−20	迷茫 like confused in English	−9	凄惨 like miserable in English	−12.6	−12.9

Figure 5. Emotional keywords and emotional values for the group listening to the translation of "The Moon Over a Fountain".

As each participant was asked to fill in four parts of the translation, there were four sentences in the original text, and each sentence had a missing part to be filled in. The original design also took into account the fact that these four missing parts could be easily filled in by the experimenter through association, or through their own understanding of the emotional meaning of the original English text. In this way, each participant was given four sentiment values for each of the four sentences, and by calculating the average of the sentiment values collected for the two groups, it was easy to see that the first group had a positive value of 5.24 and the second group had a negative value of −9.37 (Figure 7). The higher the number, the higher the level of positive emotions, and *vice versa*, while negative values represent negative emotions. Nevertheless, it is arbitrary to determine the sentiment orientation of the entire data based on a single mean value. The randomly selected value of the first group's population is considered to be not equal to the randomly selected value of the second group's population. In other words, the difference between the randomly selected value of the first and the second group's populations is big enough to be statistically significant. As shown in Figure 8, both groups of data can develop a normal data structure, which means that the objectivity of the two groups of data is still relatively reliable. A normal distribution means that the vast majority of the sentiment data are not very different, and only in a few cases may there be a significant difference in their values, which is perfectly normal in the experiment, and we should accept the uncertainties that may arise in the experiment because it is these uncertainties that contribute to the objective accuracy of the experiment.

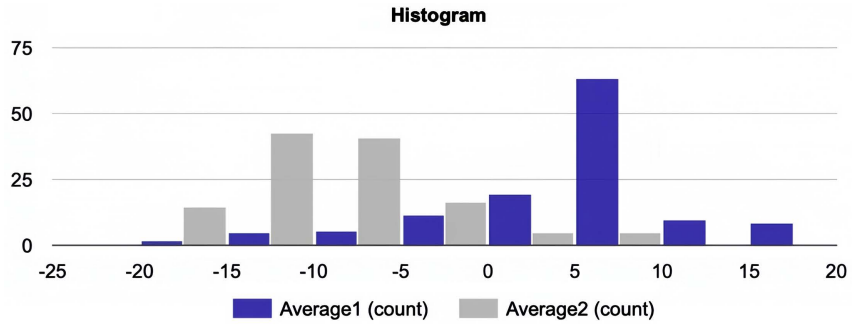

Figure 6. Statistical histogram of the sentiment values of the four keywords in the two groups of experimental translations.

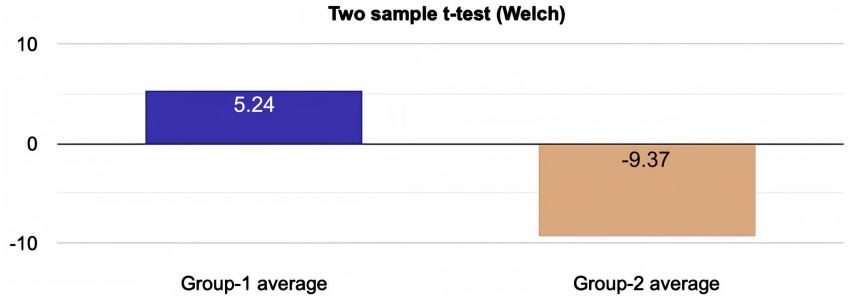

Figure 7. Average of sentiment values for the two data groups.

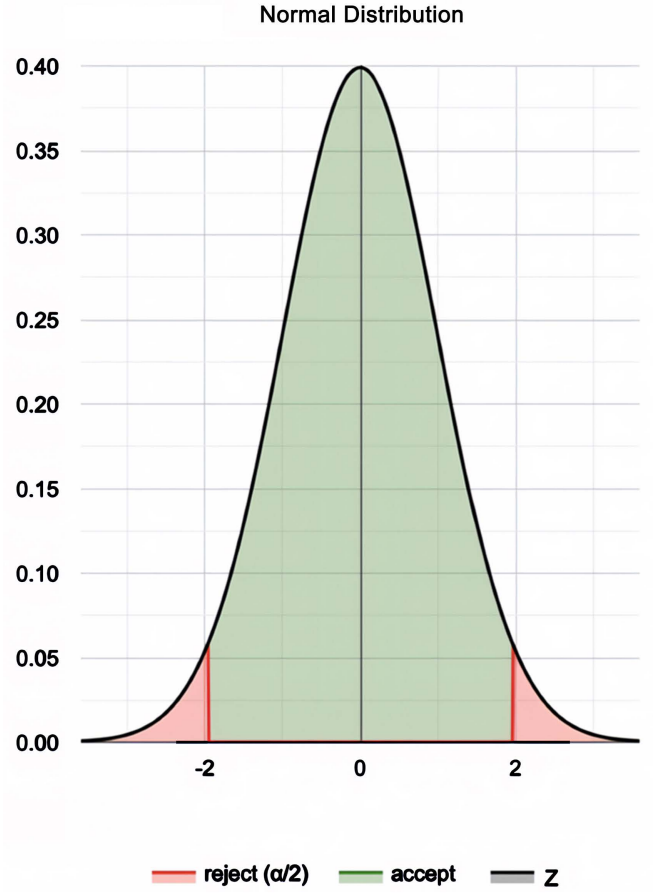

Figure 8. Normal distribution of the two data groups.

5. Conclusion

Through a specific experimental approach, it is further demonstrated that in the process of translation practice, emotions are interfered with by external vectors that lead to translations with different emotional connotations, which in this paper refers to the auditory factor within the perceptual dimension of embodied qualities. It is easy to see that there are many types of specific physiological behavior covered, and this paper takes the ability to test the influence of auditory factors as an entry point for a rigorous experimental design to confirm the role of embodied cognitive theory in influencing translators' emotions during the translation process.

Due to the very comprehensive scope covered by embodied cognitive theory, it also shows that the factors that affect psychological experience since physiological experience are extremely numerous and complex, and it is far from enough to study the influence of hearing on emotion alone. In other words, if we really want to systematize this matter, there is a lot of research to be done, and a rough estimate is that this may not only include the representational meaning of the human body but also the intrinsic aspects of human beings, such as culture or morality, which will have an impact on emotions. There is a long way to go in terms of exploring the factors that underpin this.

With regard to the richness of embodied cognition at the psychological level, scholars have been studying it in recent years. Emotions, as a universal human psychological appeal and a tool for self-healing, have a definite impact on translation practice. When it comes to translation studies, it is common to look at linguistics, lexicography, and other aspects of translation methodology, but few people really notice the diversity of translation not only in terms of translation methodology but also in terms of translation emotions. Translation practice may be driven by external trends, but what remains constant, or at a more concise and pure level of influence, is emotion. To examine whether emotions change in the translation process, in other words, whether the embodied view of emotions is always relevant in the multiple dimensions covered by the category of the embodiment is still unknown and requires more in-depth and varied research by translation practitioners.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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