The International Conference on Interdisciplinary Humanities and Communication Studies
DOI: 10.54254/2753-7064/4/20221000

Research on the Different Meanings of Facial Expressions under Various Cultural Backgrounds

Jincheng He[1,a,*]

[1]*University California Davis, CA, United states, 95616*
a. jcbhe@ucdavis.edu
**corresponding author*

Abstract: The application of analytical and holistic thinking in the field of social neuroscience has been extensively explored by philosophers and psychologists from different cultures. Research has revealed the neural substrates of self-awareness processing. Whether there are differences in facial expressions across different cultures has been debated for 100 years. In the last 30 years, much research has supported both arguments with empirical evidence. Research on cultural differences in facial expressions is not systematic or complete. By analyzing the differences in facial expressions in different races, this paper aims to explore whether there are significant differences in facial expressions among various cultural backgrounds. By analyzing the differences in facial expressions in different races, this paper aims to explore whether there are significant differences in facial expressions among various cultural backgrounds. After reviewing the previous literature, we concluded that, despite some minor differences in emotional facial expressions reported in east Asian culture versus the western counterpart, most valid published papers found non-significant cross-cultural differences in major facial expression types.

Keywords: Neuroscience, Facial expression, Cultural differences, Ethnicity

1. Introduction

Neuroscience has significant potential for understanding cultural differences. Despite playing an important role in social psychology, however, only a few studies have examined whether something known as a "cultural brain" underlies the way people think from different cultural backgrounds. By revealing how nature and nurture interact to modulate cultural differences in thinking and behavior, we can develop more social interventions to make society more cohesive.

Recently, transcultural neuroimaging research has attempted to identify potential neuronal mechanisms that mediate culturally specific self-related processing based on evidence found in Western and East Asian cultures with respect to self-construal styles. In transcultural neuroimaging research, findings are used to understand better the self's culturally dependent characteristics and the neural substrates that support these characteristics. In addition, this provides insight into how psychological and philosophical concepts of the self can be conceptualized.

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2. Analysis of the Meaning of Facial Expressions under Different Cultural Backgrounds

Communication with people includes both written and non-written communication. Because of the diversity of cultures, the degree of cognition of a thing is also different. Cognition includes many aspects, each of which can reflect the cultural differences of different countries[1]. However, the research on cognition and the differences between Chinese and Western cultures is not perfect or systematic. Cultural background plays a vital role in affecting people's general behavior. Perceptions of individuals are significantly affected by their nationality and ethnicity. This correlation has received significant academic attention. Various empirical studies have been conducted on the influence of culture on human cognition. These studies have consistently found that every culture in the world is unique and has its own style. Communication between people from different countries, and different cultural backgrounds causes a lot of trouble. Understanding cultural differences can thus assist us in avoiding problems or conflicts in cross-cultural communication. As an important way of communication, body language and facial expression can clearly reflect cultural differences. This paper focuses on the relationship between facial expressions and perception and the influences caused by different cultures from the perspective of facial expressions.

It is a group's culture that determines what behavior is acceptable and approved by that group. As a member of the human race, one must learn and understand this aspect of life. Participating in a collaborative learning process is an essential component of the learning process group. Generations of people have passed down culture and body language from generation to generation and have practiced them for a long time. Interpersonal communication may use a variety of communication methods, not just language [2]. Having a good understanding of body language is just as important as having a good understanding of language. Expressions, gestures, and other gestures are used by us to communicate with one another. A smile and an open hand indicate a greeting; a frown indicates displeasure; a wave indicates goodbye; and so on. There is no difference in the meaning of these gestures between Chinese and Americans. It is important to note that the same body language can mean different things in different cultures. The human face is the most expressive part of the body. According to a system, the emotional face is divided into three parts: the eyebrows and forehead; the eyes, eyelids, and bridge of the nose; and the cheeks, nose, mouth, roof of the mouth, and chin. Facial Affect Scoring Technique (FAST) is the name of the system. Emotions can be expressed through different parts of the face. In addition to being a very important communication tool, facial expressions are also known as emotional displays. Our feelings can be expressed to the other person through simple gestures such as frowning, raising our eyebrows, or smiling. Our daily communication involves plenty of facial expressions, and we do not realize how much we rely on them. Communicators are able to discern the emotional level of their communication partners by observing their facial expressions. Faces are used in different ways and to varying degrees by different cultures.

As part of communication, we make eye contact with others, avoid eye contact, move our eyes in various directions, raise our eyebrows, look into someone's eyes for information, and so on. A person can be said to be in eye contact when he or she looks into the eyes of another individual. Everyday life involves the use of eye contact for a variety of purposes. To achieve this goal, you may control the conversation, control intimacy, communicate topics of interest or disinterest to your partner, receive feedback, express your emotions, and influence him or her. An infant's awareness of the eyes of their caregivers is one of the earliest developmental behaviors. As early as the first few weeks of an infant's life, the researchers demonstrated that the infant's eye contact with their caregivers was strong enough to result in a smile. In one culture, eye contact signifies respect, while in another it signifies disrespect. A Chinese person tends to avoid making eye contact with the

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audience when conversing with others or speaking in public, which Westerners consider impolite. Westerners are accustomed to making eye contact when communicating with others. A Westerner, for example, will periodically look at the audience when speaking in public in order to ensure that the audience is engaged. Eye contact consists of two distinct subcategories, gaze, and mutual gaze. Language defines gaze as looking intently at someone's face in a particular direction. Two people are mutually gazed upon when they look intently at each other's faces at the same time. In order to distinguish power from status, gaze and eye contact are crucial. Observations indicate that people with power receive more stares and eye contact than people without power. According to linguists, “some cultures consider lowering one's eyes to demonstrate respect when viewing one another”. In other cultures, this is considered disrespectful[1].

It is generally understood that smiles and laughter convey friendliness, intimacy, satisfaction, joy, and pleasure. In both English-speaking countries and in China, this is generally true. It has been observed, however, that Chinese laughter can be negatively perceived by Westerners in some situations. A letter written by an American provides an example of how certain nonverbal gestures can lead to misunderstandings in cross-cultural communication. An American is embarrassed by his clumsiness when he parks his bicycle on the ground and accidentally tilts it. On the other hand, if the Chinese onlooker laughed, he was very angry and felt humiliated as a result. In a restaurant, I once witnessed a similar incident. A foreigner accidentally knocked off his plate, which embarrassed him. A Chinese onlooker laughed, which exacerbated his anger." Of course, the Chinese people watching did not laugh at him or at his misfortunes, regardless of whether it was a foreigner or a Chinese. The messages are simply a series of warnings: Don't take this thing too seriously, just laugh it off, it happens to everyone, etc. However, for those who are not aware of this attitude, laughter can cause resentment and increase their anger. Therefore, whether smiling or laughing is appropriate in a certain situation depends on who we are communicating with. For example, for an English speaker, it is just a way to show friendliness.

Nevertheless, some research does not support the idea that cultural differences influence facial expression judgments. This is stated in Charles Darwin's book The Expression of the Emotions in Man and Animals[3]. To test its universality, he drafted 16 questions and sent them to Englishmen living or travelling in eight different regions of the world: Africa, America, Australia, Borneo, China, India, Malaysia, and New Zealand. It follows from the information they acquired that the same state of mind is expressed throughout the world with remarkable uniformity, as they witnessed in these foreign lands. As a result, Darwin concluded: "It follows from the information thus acquired that the same state of mind is expressed throughout the world with remarkable uniformity."

According to current scientific standards, this is unacceptable. In the first place, Darwin did not interview enough people in each country to answer these questions. The second problem is that Darwin relied more heavily on British answers than he did on native answers from each country. Researchers currently focus on the natives of a given country and not on foreign observers' interpretations of their behavior. Third, Darwin's manner of asking questions often provided a hint at the answers he was seeking. Specifically, Darwin asked, "Do open eyes, an open mouth, and raised eyebrows represent surprise?" Instead, Darwin should have asked: "What kind of emotional expression does this exhibit when you observe someone with wide eyes, an open mouth, and raised eyebrows?" Showing people in each country pictures of facial expressions and asking them what emotions they observed would be a more effective approach[3].

Paul Ekman conducted a study to investigate the phenomenon in more detail. Japanese and American college students were studied for their spontaneous facial expressions. In general, the Japanese consider themselves exceptional, which is why Japan was selected as our comparative culture[4]. Due to a rule stating that negative emotions must be covered in the presence of an

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authority figure, this is the reason for this. Tokyo and California students watched neutral travelogues and films that induced stress (about surgery, accidents, etc.) while their facial expressions were captured by a hidden camera. These materials have been subjected to two studies. The first experiment involved showing videos to a group of people in the United States and Japan and asking them to guess whether the person they saw had viewed a stressful movie or a neutral movie. Second, researchers measured the actual facial expressions of Japanese and American students as they watched stress films and travel movies. In general, the results of the first study on spontaneous facial expressions were positive. There was a strong correlation between the judgments made by Japanese and Americans while watching videos of spontaneous facial expressions[4]. The judgments made by Japanese and Americans when evaluating people in their own cultures are almost identical. According to Japanese observers, American students watched stressful or unstressful movies based on the views of Japanese observers. In the same manner, American citizens are judged by American citizens and Japanese citizens. This study was repeated with a group of new students in Japan and California watching stress-causing and non-stress-causing movies and another group of observers judging their spontaneous facial expressions in Japan and California. There is no difference in the results. It is not possible to determine whether a facial expression is presented in a tense or neutral film based on the cultural background of the observer or the person presenting it. A Japanese observer must have understood the American facial expression the same way that the American observer did, and likewise, the Japanese subject's expression must have been interpreted similarly. Videotapes demonstrating spontaneous facial expressions provide very strong evidence, and it is not a judgment of still photographs.

The modern world is one of great cultural diversity[5]. However, many big corporations and cosmopolitan areas where people from different cultural backgrounds mingle together, are facing challenges to maintaining cohesion in this context. Therefore, it is important to explore the underlying mechanisms that shape different cognitive styles across cultural differences.

Would we be discussing cultural differences between East Asians and Westerners, Danes within Europe, regions within a country, or subcultures, such as farmers in the city and entrepreneurs in the country? In anthropology, it is customary to approach this question by devising a research strategy that focuses on investigating how differences appear to be produced and maintained at the border, rather than attempting to identify cultures based on their presumed innate differences[5]. Group interaction, regardless of their constitution. In order to better understand how emergent dynamics may occur in the interaction between concrete individuals in culture, more emphasis is placed on understanding how this emphasis on differences can be achieved. It is less significant to map out the gross differences between abstract categories of millions, if not billions, like North Americans and East Asians, Chinese, or Danes.

Accordingly, the field of cultural neuroscience is both a cultural product and a neutral descriptive term. Certain groups are labeled as collectivistic, while others are individualistic, and this becomes not only a neutral category tagging differences in the world but also an active element of self-other distinctions that gain in importance both inside and outside the lab.

Although neuroscience has played an important role in social psychology, only a few studies have examined whether something known as a "cultural brain" underlies the way people think from different cultural backgrounds.

3. Conclusion

The expression of emotions on the face is influenced by a variety of factors, including cultural and individual differences. The expression itself is unique, as is the meaning it conveys to both the person displaying it and others. It is expected that there will be the greatest difference in terms of the words that are used to describe emotions. Languages may differ not only in how many words

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they have for each emotion, but also in their ability to express subtle nuances, or combine emotions, tell us what caused the emotion or what behaviors will most likely be displayed. A lack of a word for an emotional state, or the presence of a large number of words, may influence the experience of emotion. Identifying feelings without naming them is difficult.

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