

A Multi-modal Discourse Analysis of WeChat Emoji Usage in Different Age Groups

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Abstract: As an auxiliary chatting method, WeChat emojis have played an important role in people's language communication. As an emerging field, it has received extensive attention from linguistics in recent years. Based on the language meta-functions of Halliday, this paper will combine emoji with different age groups of people, and use multi-modal discourse analysis to deeply explore the ideational function, interpersonal function and textual function when different age groups use WeChat emoji and refine their internal reasons.

Keywords: Systematic Functional Linguistic, Multi-modal discourse analysis, Emoji, WeChat

1. Introduction

1.1. Background

With the development of the Internet, social methods and communication environment of people are constantly changing. In addition to face-to-face language communication, people also use some social media to communicate, such as WeChat, an indispensable social medium which plays an important role in the Internet era. On February 25, 2022, the China Internet Network Information Center (CNNIC) released the 49th "Statistical Report on the Development of China's Internet" in Beijing. The report shows that the overall scale of netizens in China continues to grow. It reached 1.032 billion, an increase of 42.96 million compared with December 2020, and the Internet penetration rate reached 73.0%. What's more, Tencent's latest financial report data shows that as of the end of the third quarter of 2021, the number of monthly active users of Tencent's WeChat has increased to 1.263 billion, and the number of active mini-programs has increased by more than 40% year-on-year. This means that WeChat, as a national social software, has penetrated into all aspects of people's lives. Therefore, this paper intends to start from the use of emoji on WeChat, and conduct a systematic functional grammatical analysis of the use of WeChat emoji in different age groups.

1.2. Research Questions

This research focuses on the key following questions: (1) What meta-functions does WeChat emoji have? (2) Which meta-function do different age groups focus on? (3) Why do different ages have different meta-functions when using WeChat emoji?

1.3. Purpose of the Research

As emoji become more and more widely used in the population, the analysis of emoji in linguistics has also become diverse. However, there are few academic studies analyzing emoji from the perspective of Halliday's three meta-functions. At the same time, analyses that combine emoji meta-functions with age groups of use are rare. Based on this, this paper attempts to enrich the linguistic research on emoji through SFL analysis, and to pave the way for its subsequent development.

This study conducts discourse analysis on the use of emoji in two age groups from three aspects of Transitivity, Mood and Theme. Through descriptive language and generalized discussion, the use of emoji in various age groups is analyzed to explore the different internal motivations of young people and elder people in terms of language expression, and understand what purpose each age group uses emoji for, and what kind of social identity they use emoji in.

2. Literature Review

2.1. Studies of Emojis

Walther, Joseph B pointed out that online emoticons are non-verbal surrogates in online communication [1]. That is, in network-mediated communication, emojis are provided to enhance the exchange of emotional information. Walther and D'Addario proposed that emojis are created on the basis of human facial expressions, and they are expressions to humans [2].

Derks and Bos pointed out that online emojis are non-verbal proxies and they are used to improve emotional communication by providing social cues [3]. Cappallo et al. proposed that emojis are a product of ancient hieroglyphics [4]. Falmen et al. argued that emojis are signals that retain information through images and can reflect people's thoughts. Walther and D'Addario proposed that emoji can disambiguate information [2]. Also, the use of emoji can help interlocutors express emotions accurately. What's more, emojis can also help convey the cues of conversation [5], implement politeness strategies and face protection strategies to promote harmonious relationships between both parties [6-8]. In addition, emojis help to foster harmonious group relationships [9]. In short, the use of emoji can make information clearer and compensate for the lack of non-verbal information in written communication. D Tandyonomanu and Tsuruyya pointed out that emoji, as a substitute for non-verbal information in face-to-face communication, can help to effectively convey hidden meanings [10].

2.2. Studies of Three Linguistic Meta-functions

Research on emojis in the field of sociosemiotics has focused on how emojis function as symbols. It considers how emojis achieve meaning in three meta-functions defined by Halliday. These three meta-functions are: ideational function, interpersonal function, and textual function, all three meta-functions are understood to be carried out simultaneously in different or overlapping modes in all types of communication [11].

The ideational function of language is realized through the transitivity system. Transitivity analysis focuses on Process, Participants, and Environment. By dividing the Processes into six categories: Material, Relational, Mental, Verbal, Behavioural, and Existential, the structure of the clause is embodied [12]. The Transitivity process helps to compare different languages at the level of basically the same meaning, such as: whether the Participant is a grammatical subject or object, whether the Participant has been mentioned before, etc.

The interpersonal function of the language is realized by Mood and Residence, Mood includes Subject and Finite, while Residence includes Predicate, and sometimes Complement and Adjunct. When the Subject precedes the Determiner, the clause is a declarative sentence; and when the determiner precedes the subject, it indicates that the clause is a yes/no question. Halliday argues that the speaker's constant selection of subjects gives a certain utterance a unique style [12].

Finally, the textual function of the language is divided into the thematic structure and the information structure, the Theme refers to "the starting point of a certain information" [12], which shows the way a certain clause unfolds. Functionally, the relative concept of old news and new news refers to the information structure, and the connection between them can be used to analyze the context.

Zappavigna focused on Multi-modal Discourse Analysis (MDA) from Systemic Functional Linguistics, using Twitter as a research platform to map the meaning-creating function of hashtags [13]. She pointed out that hashtags can serve an experiential function by taking the place of lexicogrammatical items, such as Participants (i.e. nouns) and Processes (i.e. verbal clauses). At the same time, hashtags can also create interpersonal meaning, because it can provide the speaker's attitude towards an event. Finally, hashtags also implement a textual function by classifying textual content into Theme and New, linking together tweets with the same hashtag. Based on Zappavigna's research, Parkwell extended the research on hashtags to emoji and analyzed how emojis create meaning in different discourse layers [14].

3. Methodology

3.1. Interview Method

First, through sampling statistics, comprehensively considering demographic variables such as age, gender, residence, etc., the researcher selects volunteers who meet the conditions for interviews. The interview method is a text interview using WeChat. The interview time for each interviewee is about 30 minutes. A total of 18 volunteers were interviewed, of which 9 volunteers were young people with an age range of 10-34 years old, and the coding records were Y01 (Young people No.1), Y02 (Young people No.2), and so on. The other 9 volunteers are elderly groups, ranging in age from 45 to 64 years old, and the coding records are E01 (Elder people No.1), E02 (Elder people No.2), ...

The interview revolves around three themes: work/study, daily life, and current news. A total of nine questions are set as follows:

- (1) What are your recent achievements in work/study?
- (2) How has your boss/teacher treated you recently?
- (3) Have you encountered any troubles at work/study recently?
- (4) Do you like cats or dogs?
- (5) Are there any good books or movies and TV series to recommend recently?
- (6) What did you eat tonight?
- (7) How has Covid-19 affected your life?
- (8) Do you think women should remain financially independent after marriage?
- (9) Do you think middle-aged and elderly people should take health care products?

Table 1: List of Interviewee.

Interviewee	Age	Interviewee	Age
Y01	23	E01	45
Y02	25	E02	60
Y03	30	E03	52
Y04	33	E04	49
Y05	27	E05	63
Y06	18	E06	41
Y07	34	E07	51
Y08	26	E08	52
Y09	25	E09	60

3.2. Text Analysis

Discourse analysis is a qualitative analysis in communication. In the field of systemic functional linguistics, the study of non-linguistic symbols cannot be separated from linguistic symbols and context. Therefore, in order to make the research more reliable and convincing, this paper analyzes the emoji used by each interviewee based on the interview texts mentioned above to explore the differences in the emoji used by different age groups in real chat situations.

4. Analysis

4.1. Differences in Transitivity

Halliday proposed six types of Process, namely material, relational, mental, verbal, behavioural, and existential [12]. Among young people, emoji mainly appear in the material process, mental process, and relational process, and it is worth noting that it can occupy infix positions and integrate with other parts of the text. In this case, emoji act as participants, giving conceptual meaning to the text.

Y01: I was in a bad mood this morning, so I drank ☕.

Actor	Process	Goal
I	drank	☕

In this sentence of Y01, "☕", as an emoji, directly replaced the nominal group "coffee". This coffee emoji became the Participant and gave the sentence a complete meaning. In this way, young speakers use some emoji to replace words composed of multiple characters, so that the seriousness of the speech is reduced, and the atmosphere of the conversation becomes more relaxed, which will be explained in the Discussion section of this paper. The following example also belongs to the material process.


Y04: I ❤️ this song!


Actor	Process	Goal
I	❤️	this song

Although this sentence said by Y04 belongs to the same process type as Y01, emoji acts as a different grammatical component. In the sentence of Y01, emoji replaced a nominal group and acted as the Goal, but in the sentence of Y04, emoji replaced a verb and directly acted as the Process. "❤️" replaces the four-character verb "love", and in all interviewees with 18 people, only this sample of emoji as a verb appeared, it can be seen that people are more willing to give emoji meaning at the semantic level, but rarely give it meaning at the grammatical level.


In addition to serving as different grammatical components in the same process type, emoji also appear in different processes:


Y05: Those  are so pretty!

Carrier	Process	Attribute
Those 	are	so pretty

This sentence belongs to relational process - a type of process that facilitates description and identification [11]. Therefore, “” serves as the noun meaning of “high-heeled shoe” which is the object of the speaker’s evaluation. What these three sentences have in common is that in young people’s conversations, emojis can be directly mapped to the semantic level, making the sentences meaningful.

However, in interviews with elder people, emoji are mainly appeared at the end of sentences, used to repeat or emphasize the meaning, and rarely in the form of grammatical components, as shown below:

E03: Your makeup is going too fast! 

E05: Your attitude towards this interview is really serious. 




In the discourse of E03, the emoji expressing anger emphasizes the emotional color of the sentence, and the red human face has a visual impact on the recipient, indicating the emotion more intuitively. In the sentence of E05, the thumbs up expresses the speaker’s praise to the hearer, not only does not lose the identity of the elder, but also narrows the distance with the hearer through emoji.


However, in these sentences, emoji cannot replace any content word or function word, nor can it be analyzed at the grammatical level as a sentence component. It only serves as a supplement to consolidate the emotional color of the speaker, make the meaning of the sentence clearer, and reduce the possibility of misunderstanding by the listener.

4.2. Differences in Mood

The study found that the use of emoji by different groups is closely related to the Mood of clauses.

When the clauses were questions or rhetorical questions, 9 elder interviewees uttered a total of 39 interrogative sentences, but none of them used any emoji; 9 young interviewees uttered 49 interrogative sentences, 3 of which used emoji:

Y02: Why is my dissertation not finished yet?   

Y03: Didn’t you listen to Jay Chou’s new song? 

Y06: Does my dinner look delicious? 

From the words of the three young interviewees, when they asked a question, they tended to use an emoji at the end of the sentence to further illustrate the emotion the speaker wanted to express. This emoji does not act as any component in the sentence, but the deletion of them will lead to ambiguity of the meaning of the sentence and misunderstanding of the hearer. In the interrogative sentence of Y02, if the last three emojis representing crying are omitted, the listener will mistakenly think that Y02 is asking a question, but in fact the speaker is expressing his frustration that he has not finished his dissertation. Not only that, but Y03 uttered a rhetorical question and added a surprise emoji at the end of the sentence, which strengthened the speaker’s tone. The same elaboration can also be used in the interrogative sentence said by Y06. When the speaker typed an emoji representing a smile at the end, this sentence has an obvious emotional tendency - the questioner hopes to get a positive answer.

Interviewees in both age groups used more emoji when the clause was an imperative sentence than when the clause was an interrogative sentence, with 9 emoji used by elder interviewees compared to 24 in total by young people, and sometimes a single emoji is superimposed. As follows.

E09: Pay attention to safety. 😊

Y05: Wear a mask. 😊😊😊

Y07: Stop talking. 😊

When the clause is a declarative sentence, the elderly group uses emoji more frequently. According to the interview results, 9 elderly interviewees said a total of 182 declarative sentences, of which 23 emoji were used. Nine young people said a total of 217 declarative sentences, using 96 emojis. Some examples are listed as follows:

E03: The recent flu in Wuhan is not particularly severe. 😊

E03: Women need to be themselves first, and then be the wives and mothers of others. 🙋

E06: I haven't watched TV much lately. 😊

Y06: I miss you. 🙋🙋🙋

Y08: I think most women would agree with this point of view. 😊

Y09: If you are healthy enough, you don't need to take any health supplements. 🙋🙋🙋

First, older respondents used far fewer emojis than younger respondents, even when speaking declarative sentences; moreover, they mostly used a single emoji rather than a stack of multiple expressions. On the other hand, young interviewees mostly like to superimpose emojis, so that the listeners can feel a clearer emotional expression.

4.3. Differences in Topic

Through interviews, it can be found that different topics will lead to changes in the frequency of respondents' emoji use.

When the topic is current affairs news, interpersonal theme seldom appears in the conversation, and the marked theme also does not appear, because this conversational genre determines that it neither needs character relationships nor tedious chronological ordering of events. Based on this, it can be found that the themes are mostly "it" or proper nouns. It is precisely because of the complexity and formality of this theme that both young and elder people use emoji when chatting around such themes, which makes their statements more objective and more credible. This will be discussed in more depth later.

And when the theme is more informal, the usage of emoji is greatly increased. People will unconsciously use emoji to create a more relaxed chat environment. Such as the sentence of Y06: "I've been so busy lately 🙋🙋, I don't have time to go out and play 🙋." These two sentences are actually causal, but it is worth noting that the speaker did not write connectives into the utterance but used emoji representing mood to connect the context. In this way, emojis make the text less embedded in structure, making it easier for readers to read.

5. Discussion

5.1. The Development of the Times

Why do emoji act as different grammatical components at different ages? First, emoji itself has the function of replacing text communication. The information it builds clearly points to the code used. Therefore, in the Internet age, emoji is used by young people to replace the text symbols that can convey the same information, which is determined by its own function. Compared with words in the

traditional sense, these emoji can ridicule and deconstruct mainstream authority, advocate the liberation of the repressed individuality of social individuals, and young people themselves can give it new connotations and meanings - these creative features were developed by young people of the new age, accelerating the development of emoji as a grammatical construct.

However, the elderly groups do not use emoji as a tool to liberate their personality like the younger generation. They more often regard traditional text symbols as a conventional chat tool, and emoji are only used to act as a certain tone or to express a certain attitude and cannot be really structure. In addition, the elderly people use emoji less because they sometimes lack the ability to understand emoji. The loose structure and relatively complex referential inclusion of the network itself lead to the simplicity of emoji itself and the complexity of carrying meaning to a certain extent. Therefore, these emojis based on cultural information cannot be recognized and decoded by the elderly at a time when they do not feel surrounded by multiculturalism.

5.2. Building a Social Image

Social context is a necessary factor to consider in emoji usage. Young people are mostly in a more equal and intimate relationship, and emoji can create a more harmonious and relaxed language environment. Therefore, young interlocutors are more likely to open their hearts through emoji - this also corresponds to why Emoji appear more frequently in casual conversations than in serious ones. Because in a task-oriented context, the interlocutor does not need to construct a more polite or amiable self-image, there is no need to protect their face. But in casual contexts, emoji can be used to express attitudes and elaborate messages. As mentioned in the analysis of Mood above, emoji can reinforce a message when placed after a statement or question; it can also soften a message when placed after an imperative or disagreement. It turns out that the use of emoji increases information richness, which in turn leads to enhanced social relationships and identity expression.

However, for the elderly group, constructing a self-image is a relatively unnecessary thing, because their social identity has been revealed with age and experience. As can be seen from the above example, most of the elderly interviewees are negotiating with the interviewer in an elder or higher position. This kind of relationship is not close and equal enough, so there is no need for emoji to assist. On the contrary, reducing the use of emoji can create a more serious and serious image of the elderly, which is in line with their needs.

6. Conclusion

From the perspective of systematic functional linguistic, this paper mainly studies the usage of emoji in different age groups. Major findings are as follows.

When young people use emoji, they will use it as a grammatical component of clauses, because emoji is synonymous with young people's liberation of personality and the pursuit of language freedom. Young people are not restrained when using emoji, and are even willing to use emoji instead of traditional text symbols, because it can ease the tone and establish a close and friendly communication environment for the interlocutors. On the contrary, the elderly use less emoji, and are not accustomed to letting emoji replace language symbols such as nouns and verbs. This is because older people are more willing to create a formal and serious social atmosphere, establish themselves as elders, and they are less willing to accept multiculturalism than younger people, so they cannot recognize and decode some emoji with additional meaningful characters.

A limitation of this study is that the amount of data analyzed is not large enough, and most discussions are based on interview texts. Therefore, future researchers can use more data models to analyze the results of emoji usage in different age groups and can use research methods such as questionnaires to provide more evidence for these views.

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