Cognitive Approach of Emotion and Discourse Manipulation of Sentence-Ended Particles in East Asian Languages

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Abstract

From cognitive and typological perspective, the emotion function and discourse manipulation of language are investigated and discussed. The framework of this paper is based on the cognition approach of emotion and concerned with the emotion mechanisms and the relationship between automatic and reflective evaluations. The grounding of language in emotional states can be influenced by discourse-level factors and manipulated for pragmatic purpose. Based on this approach, I propose that discourse manipulation might have a major impact on the emotion appraisal and communication through the four distinctive dimensions of emotion: arousal, valence, dominance, and subjective significance. And then I dealt with typological evidence by investigating the discourse manipulation of sentence-ended particles through the arousal, valence, dominance, and subjective significance dimensions of emotion.

Keywords: Language, Cognition, Discourse manipulation, Sentence-ended particles

1. Introduction

From the viewpoint of cognitive approach, emotion is a reaction to the evaluation of a stimulus (Jarymowicz & Imbir, 2015). Emotion is not just physical, but is an evaluation, and now is called appraisal (Reisenzein, 2006). I suggest that emotion is a kind of appraisal process in cognitive approach, and emotion and cognition are interwoven very closely. As for the emotion and language, the emotion percept can evoke a conscious/unconscious affective evaluation and can be reconfigured into language. At the same time language might down-regulate emotion. Thereby, emotion appraisal in language is an interactive process

depended on different emotion mechanisms.

In this paper, I focus on the cognition approach of emotion and the emotion mechanisms, and then extend to the relationship between emotion and language. These considerations set up a framework from which testable hypotheses can be derived, and that aims at the nature of emotion in language in the next section. I then dealt with typological evidence by investigating the discourse manipulation of sentence-ended particles through the arousal, valence, dominance, and subjective significance dimensions of emotion in section 3. Finally, I conclude this proposal.

2. Theoretical Background

2.1 Cognitive Approach of Emotion

Cognitive approach of emotion consider emotion as a kind of appraisal process and appraisal process refers to evaluation including cognitive processing. In investigating cognitive approaches, Roseman (2013) propose that appraisals are not just post hoc impressions, but causes of emotions. It has also been found that appraisal rather than the situation determines the emotion; appraisal predicts the kind and intensity of emotions (Siemer, Mauss, & Gross 2007). Thereby, emotions are cognitively defined as the result of a pattern of appraisals to comprehend environmental meaning (Lazarus & Smith, 1988; Scherer, 2005; Oatley and Johnson-Laird, 2014).

According to Koelsch, Jacobs, Menninghaus, Liebal, Klann-Delius, von Scheve, & Gebauer (2015), as a kind of appraisal, emotion is the integrated result of activity in affect systems and emotional effector systems. The emotion percept can be reconfigured into language, and the emotion percept might elicit conscious cognitive appraisal. Conscious cognitive appraisal encompasses rational thought, logic, and usually language (Lazarus & Smith, 1988). Conscious cognitive appraisal system can involve language which might down-regulate emotion and language might be context for the perception of emotion (Barrett, Lindquist, & Gendron, 2007). In the meantime, perceived stimuli probably evoke an affective evaluation. Although the results of experiments of emotions and cognition is remaining inconsistent (Bodenhausen, Sheppard, & Kramer, 1994; Pessoa, Medina, Hof, & Desfilis, 2019), appraisal theories of emotions (Scherer, 2004, 2005) might provide some insight into emotion-cognition relation from cognitive approach.

2.2 Emotion Duality Model

It is generally accepted that human mind consists of experiential system and rational system (Gawronski & Creighton, 2013; Gawronski, Sherman, & Trope, 2014). Furthermore, there are automatic and reflective mental systems governing affective reactions (Jarymowicz & Imbir, 2015). Duality of mind theories compare automatic and controlled processes (Gawronski and Creighton, 2013), and emotion duality model compares automatic emotion appraisal with cognitive emotion appraisal (Imbir, 2016). While cognitive and reflective evaluation is based on evaluations of concepts and evaluative processing (Weiner, 2005).

The automatic mental system uses arousal to activate mental operations (Bradley & Lang,

1999; Russell, 2003). Arousal mechanisms are part of the automatic mind with no requirement for plenty of cognitive resources. And the cognitive mental system requires mechanisms of activation which is subjective significance. Subjective significance is an attitude generated by the reflective mind including all the individual's goals. According to the viewpoint of Imbir (2016), when reflective emotions assert the situation is significant, the "mental energy" of the rational mind become strong. If not, the cognitive network has weak activation and may not influence the process of cognition.

2.3 Emotion and Language

As mentioned above, the emotion percept can evoke a conscious/unconscious affective evaluation and can be reconfigured into language to elicit conscious cognitive appraisal. So, on the one hand, Emotion is an affective evaluation by means of conscious/unconscious appraisal processes in language which can influence conceptual meaning. On the other hand, language have some effect on emotion recognition as well. Some studies (Scherer, Banse, Wallbott, 2001; Vanbezooijen, Otto, & Heenan, 1983) report an in-group advantage, as emotions that are simulated by speakers of the same language are more accurately identified compared to speakers of a different language. Therefore, language features including pragmatical features and social aspects are important in recognizing emotions (Beaupre & Hess, 2005; Laura & Tatiana, 2018).

Furthermore, emotion duality model states, emotion systems are evolutionarily predefined through arousal but refined by experience and context through subjective significance (Imbir, 2016). As the contextual learning hypothesis claims that the nature of emotion effects is based on a person's learning history with that emotion. That is, emotion gain meaning via their situated conceptualization and subjective significance. In addition, context plays a key role in emotion meaning of language. Emotions are not pre-existing states that are in individuals; rather, emotions are created between individuals in specific contexts (Cronin, 2014). Thereby, the conscious/unconscious emotion appraisal in language is an interactive process depending on arousal and subjective significance along with context to some extent.

3. Discourse Manipulation

3.1 Discourse Manipulation of Emotion in Language

The grounding of language in emotional states can be influenced by discourse-level factors which is the very important appraisal process to influence emotion by language and interaction between them. According to Filik, Hunter & Lethold (2015), positively and negatively valenced words presented in context influence motor responses and whether discourse context indicates that an utterance can influence motor responding, suggesting that the grounding of language in emotional states can be influenced by discourse-level factors.

I propose that, there are four dimensions of emotion related to discourse manipulation: arousal, valence, dominance, and subjective significance.

Arousal is the most important means to activate automatic mental system and is related to emotional intensity and emotional meaning. The relationship between arousal and

performance follows the Yerkes-Dodson law (Imbir, 2016; Yerkes & Dodson, 1908). Yerkes-Dodson law states that relation between activation (also motivation or energy) and performance level is described by an inversed U-shaped curve (Teigen, 1994). That is, the maximum performance is associated with moderate while both low arousal results and highest arousal result in poor performance.

Negative and positive valences are belonging to the dimension of emotion related to goal achievement. Russell (2003) proposes that core affect is the basic state underlying all emotion. There is a U-shape relationship between emotional valence and arousal intensity (Imbir, 2015). That is, stimuli with positive or negative valence is more arousing than neutral stimuli.

While several studies have shown that the world of emotion is two-dimensional (Yik, Russell, & Feldman-Barrett, 1999), other studies propose that affect (Fontaine, Scherer, Roesch, & Ellsworth, 2007) may best be measured through three dimensions − valence, arousal, and dominance (Fontaine, Scherer, Roesch, & Ellsworth, 2007). Dominance might be close to social cognitions such as power and control (Keltner, Gruenfeld, and Anderson, 2003).

Subjective significance is the mechanisms of activation of cognitive mental system. There is the second Yerkes-Dodson law between subjective significance and performance (Imbir, 2016). In short, low subjective significance might result in poor performance because lack of motivation. And high levels of subjective significance might also result in poor performance, due to disruption of conscious control over automated actions (Imbir, 2016).

It is reasonable to assume that, each dimension of emotion can be influenced by discourse factors for pragmatic purpose. Thereby, I here put forward a possible hypothesis, that is, discourse manipulation might have a major impact on the emotion appraisal and communication through distinctive dimensions of emotion. This issue will be dealt with typological evidence in more detail in the following section.

3.2 Discourse Manipulation of Sentence-Ended Particles

Sentence-final particles in East Asian languages do not correlate with the specific syntactic features, it seems that typological differences do not play the major role. Thereby, it is reasonable to investigate the final particles from pragmatic perspective alternatively. Sentence-final particles in East Asian languages are often viewed as discourse markers which are suitable cases for discourse manipulation. Because discourse markers are often conveying emotions to others, I thus propose that some discourse markers such as sentence-final particles are a kind of language-specific emotional device which often conveys emotions to others which display some emotional universality (Zhu, 2016). I now investigate the discourse manipulation of sentence-ended particles through the four dimensions of emotion, that is, arousal, valence, dominance, and subjective significance.

3.2.1 Arousal

English and Mandarin are very different in the methods of expressing emotions to the purpose of interpersonal relationship. A comparative study between a play script in Mandarin and its translation edition in English was investigated (Tang and Li, 2007). The result has

shown that modal verbs like *must*, *can*, *may*, *had better* and other lexical methods are often used to indicate mood and modality in English translation. However, besides them, Mandarin Chinese has other large number of grammatical resources such as the sentence-ended modal particles with discourse manipulation. As I have discussed above, emotion is a kind of evaluation process which cannot be separated from cognitions systems. Hence, I might regard mood and modality as cognition appraisal and emotion to some degree.

It illustrates that Chinese has more varied and complicated devices in expressing mood, modality and interpersonal emotion using sentence-ended modal particles. According to Halliday (1994), there are three graded modality values attached to the moral judgment in English. The three graded values are high, median, and low, such as modal verbs *must*, *will* and *may*. Nevertheless, sentence-ended particles in Mandarin are highly context-dependent and cannot be graded in three values only as in English. This reveals that modal particles play an important role in revealing subtle modality values and emotions to constructing their identity. It may be illustrated in the following example.

(1) 哼!我跟你说,我娶你妈,我还抱老大的委屈呢

    Heng! Wo gen ni shuo, wo qu ni ma, wo hai bao lao da de weiqu *ne*.

    Humph! Now just you listen to me. I've never stopped blaming myself for marrying your mother.

ne in source text indicates some kinds of discontented feelings, while negative modal adjunct *never* is used in English translation. English, compared to Chinese, would reveal more enhanced feeling.

There are plenty of other sentence-ended particles indicating different graded intensity of appraisal in Mandarin Chinese.

(2) 现在吃吧! /现在吃啊! /现在吃呀!

    xianzai chi *ba*! / xianzai chi *a*! / xianzai chi *ya*!

    (Please) eat it now!

The imperative sentences, with/without different sentence-ended particles show graded intensity from command to polite advice.

le is often used in rejection as a kind of pragmatic softener, and *ba* is often used for suggestion. Thereby, adding *le* or *ba* or both to the end of negative rejection indicate graded intensity of rejection. The following sentences may illustrate the graded intensity as well.

(3) 不吃,我还有事呢

    Buchi, wo haiyou shi ne.

    不吃了，我还有事呢

    Buchi *le*, wo haiyou shi ne.

不吃了吧，我还有事呢

Buchi *le ba*, wo haiyou shi ne.

I will not eat. I have something else to do.

Due to the relationship between arousal and performance follows the Yerkes-Dodson law, low and high arousal results in poor performancel. Graded arousal therefore provides means for gain better performance in emotion communication of Mandarin Chinese. Here I propose that sentence-ended particles contribute to the graded arousal and elaborate the difference of arousal intensity of emotion.

3.2.2 Valence

There is numeral evidence that affect plays a critical role in cognition by promoting different information processing strategies (Forgas & Eich, 2013). Positive mood signals that the environment is benign, and that reliance on top-down, abstract, knowledge-driven processing is appropriate. In contrast, negative mood signals that a situation is unfamiliar and problematic, so that more concrete, bottom-up, stimulus-driven processing is required. And there is some evidence that negative affect can also increase sensitivity to external normative expectations (Tan & Forgas, 2010). Therefore, the speaker seeks for sympathy and support from the addressee by this kind of methods.

Numerous suitable instances of this kind of negative emotive stance particles might be provided as follows. Such as particle *maliya* in Korean as an emphasis marker might be used to emphasize speaker's feelings and elicit emotional reaction from addressee. The usage of counterexpectation marker is often used to express surprise and seek confirmation from addressee. Based on these functions, *maliya* is developed into a negative emotion marker to intensify speaker's negative feeling especially to express complaint or annoyance and seek for addressee's empathy about his emotion (Ahn and Yap, 2013). In contrast to particle *maliya* in Korean, particle *ke* in Cantonese shows the very similar emotional characteristic of these kinds of final particles. Particle *ke* in Cantonese is also used as an emphasis marker and can emphasize speaker's feelings. Also, particle *ke* is used to emphasize speaker's disbelief or surprise of counterexpectation in the interrogative context. There is another particle *ka* which is a combination of particle *ke* and particle *a*. It is often used as a kind of pragmatic softener in Cantonese. Particle *ka* is often used to emphasize speaker's surprise of deviation from speaker's expectation too. A similar development has taken place, that particle *ka* may also be used as a negative emotion marker to express speaker's negative feeling especially complaint or dissatisfaction (Peng, 2014). I suggest that the similarity between the particles in the above two languages is because of the similar emotion mechanism and its purpose. The interlocutors emphasize the relevance of utterance to counterexpectation and negative emotion to remind contradiction of expected norms which is very important for effective coordination.

And *me* in Mandarin is focused on negative emotive expressions as well. According to (Chappell, 1991), *me* in Mandarin also marks "obviousness", linking a current situation to a prior-existing situation. Apart from "obviousness" marking, *me* displays a propensity toward

signaling disagreement, particularly, ''indignation'' and/or ''impatience'' (Chappell, 1991:54-56) toward the addressee. He qualifies disagreeable stances such as based on asserting the matter at hand to be utterly "obvious" (Chappell, 1991). Due to the situation is clear and obvious, nothing else is possible due to the pre-existing situation, no further need for discussion. Thereby, the negative emotion of resignation and indignation is derived.

3.2.3 Dominance

Dominance might be close to social cognitions such as power and control. A powerful orientation (with a feeling of control) is associated with the motivational system of approach, whereas a powerless one (a feeling of being controlled) is related to threats, punishments and inhibited social behaviors (Keltner, Gruenfeld, and Anderson, 2003).

It is generally acknowledged that there are six important sentence-ended particles in Mandarin Chinese expressing mood, modality, and emotion, which are *de*, *ma*, *a*, *ba*, *ne*, *ma*. However, the gradation of speaker's involvement of the three particles is still less understood. According to (Yang, 2009), *de*, *ma*, *a*, *ba*, *ne* and *ma* contribute to the distinctive degrees of speaker's involvement and evaluation about situation.

The speaker's involvement indicates subjective evaluation of the situation, especially certainty of something is related to the control of the situation. If the speaker assures something true, he/she might be powerful in the controlling of the situation. That is, the speaker would have more and strong dominance emotion.

ba is often used to convey uncertainty and hesitation in Chinese. The following examples in different contexts show the graded certainty of the speakers' evaluation of the affairs. However, there is no distinct difference in English translations.

(4) 也可以说是怕他,才这样的吧

   Ye keyi shuo shi pa ta, cai zheyang de *ba*.

   I suppose you could put it like that.

(5) 大概她是不愿意吧?

   Dagai ta shi bu yuanyi *ba*?

   I don't expect the idea appealed to her.

(6) 我看过去的事不必再提起来吧

   Wokan guoqu de shi bubi zai ti qilai *ba*.

   I don't see the need to go on raking up the past like this.

Due to the degree of speaker's certainty of situation is related to his/her control of the situation, Mandarin Chinese, compared to English, differentiates more possibilities of control and social power which reveals the sensitivity about social power. While English might elicit stronger dominance emotion oriented action because of the less graded values.

It worth noted that dominance is connected to arousal to a certain extent. I have proposed that sentence-ended particles contribute to the graded arousal and elaborate the difference of arousal intensity of emotion. In dominance dimension, besides the concern with controlled/uncontrolled divergence, the graded values display the arousal intensity of emotion as well.

3.2.4 Subjective Significance

Subjective significance such as the consideration of expect goal, social relationship, and social rules plays the key role in emotion appraisal process. Subjective significance is a kind of cognitive and reflective evaluation. If the speaker wants to have a subjective influence on emotion appraisal on purpose, he/she will be inclined to use those particles with cognitive evaluations. It might be illustrated in the following instances from Cantonese, Mandarin and Singapore English.

lo in Cantonese has the function in marking ''obviousness,'' and suggests that a situation should be viewed as natural, reasonable, and unnoteworthy (Luke, 1990).

As mentioned above, *me* in Mandarin also marks ''obviousness,'' linking a current situation to a prior-existing situation, for which the explanatory link is ''obvious'' (Chappell, 1991; Chu, 1998).

lor in Singapore English is also categorized as a marker of "obviousness" to mark items as ''obvious'' and self-evident (Platt and Ho, 1989).

Particles of Mandarin *me*, Cantonese *lo*, and Singapore English *lor*, are all explications indicating the notion of ''obviousness'' and ''nothing else'' (Wee, 2002), that is, the situation is clear and obvious, nothing else is possible due to the pre-existing situation. From the epistemic assertion of "obviousness", subjective significance with reflective evaluations is aroused, therefore, no further discussion is needed to enter.

All the languages might have the epistemic assertion of "obviousness", while languages discussed above formalize the derived cognitive evaluation through sentence-ended particles. I have stated that the second Yerkes-Dodson law which states that, the optimum performance is associated with moderate but rather high and low levels of subjective significance. Compared to declaring no further need for discussion, the formalization makes the cognitive evaluation constant, not obvious and compulsive at the same time. This kind of formalization makes the subjective significance to be the moderate level, which contributes to express emotion in appropriate ways.

It worth noting, sentence-ended particles are cultural-depended, that is, cultural biases and sentence-ended particles might be integrated to express specific reflective evaluation. These considerations arrive at a hypothesis about cultural-depended emotion appraisal in languages. Concerning this argument, a suitable instance is from Cantonese and Mandarin.

tsɛ is a sentence-ended particle in Cantonese, which has the subjective significance meaning of disguising a major accident as a minor one.

(7) 唔系好远啫

　　m hɐi hou jyn *tsɛ*.

　　It is not too far.

bale in the following example in Mandarin also has the meaning of reducing a big trouble into a small one.

(8) 小事罢了

　　Xiaoshi *bale*.

　　It's just a minor matter.

The cognitive evaluation of reducing a big trouble into a small one is in accordance with interpersonal harmony which is very important in Chinese culture. These linguistic means become script to be the background of cultural norms and social relationship (Wong, 2010). Therefore, in the case of emotion communication, culture-specific display rules play a critical role on regulating how emotions are expressed in socially appropriate ways. Cultural differences shape the perception and cognitive evaluation of emotional expressions, leading to distinct cultural biases. Nevertheless, the study is still in the stage of immaturity and needs to be further explored.

4. Conclusion

Emotion is a kind of appraisal process in cognitive approach, and emotion and cognition are interwoven very closely. The framework of this paper is based on the cognition approach of emotion and extends to the relationship between emotion and language. The grounding of language in emotional states can be influenced by discourse-level factors and manipulated for pragmatic purpose. I propose that discourse manipulation might have a major impact on the emotion appraisal and communication through the four distinctive dimensions of emotion: arousal, valence, dominance, and subjective significance. Sentence-final particles in East Asian languages do not correlate with the specific syntactic features, and it is reasonable to investigate them from pragmatic perspective. Thereby, I investigate the discourse manipulation of sentence-ended particles through the arousal, valence, dominance, and subjective significance dimensions of emotion. After the investigation, I propose that sentence-ended particles contribute to the graded arousal and elaborate the difference of arousal intensity of emotion. Because negative affect can also increase sensitivity to external normative expectations, the speaker seeks for sympathy and support from the addressee by negative emotive stance particles. Dominance might be close to social cognitions such as power and control. If the speaker assures something true, he/she might be powerful in the controlling of the situation. That is, the speaker would have more and strong dominance emotion. Furthermore, subjective significance is a kind of cognitive and reflective evaluations. If the speaker wants to have a subjective influence on emotion appraisal on purpose, he/she will be inclined to use those particles with cognitive evaluations.

To summarize, from cognitive and typological perspective, the emotion function and

discourse manipulation of language are investigated and discussed. I focus on the cognition approach of emotion and concern with the emotion mechanisms and the relationship between automatic and reflective evaluations. I explore the nature of emotion in language and the relationship between emotion and language which might pave the way to a better understanding of the nature of emotion in languages. Based on this approach, I suggest that discourse manipulation might have a major impact on the emotion appraisal and communication through distinctive dimensions of emotion and dealt with typological evidence. Due to integrating perspective from different disciplines, it might throw new light on the issues on emotion in languages. Future research is needed to specify the relationship and interaction between emotion, language, and culture.

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