Journal of Siberian Federal University. Humanities & Social Sciences 2021 14(4): 522-534

DOI: 10.17516/1997-1370-0739 УДК 811.581.11

The Function of the Final Modal Particle 啊 in Chinese Dialogical Text: the Method of a Semantic Experiment

Sofya A. Simatova and Vladimir A. Kurdyumov*

Moscow City University Moscow, Russian Federation

Received 26.12.2019, received in revised form 31.01.2021, accepted 17.03.2021

Abstract. Although there are many studies devoted to the problem of Chinese final modal particles, their conclusions usually are not verified by appealing to the opinion of Chinese native speakers. The current study uses the procedure of a semantic experiment and statistical data processing method to analyze key functions of the final modal particle 啊. Respondents were given the fragments selected from Chinese dialogical texts, all these fragments included sentences with the particle 啊 (declarative, imperative, usual interrogative sentences and rhetorical questions). They were asked to evaluate the possibility of excluding the particle from the sentence in the given context without changing the basic meaning of the sentence. If respondents considered such exclusion possible, they also had to explain the difference between the sentences with and without the particle. The analysis of the semantic experiment results identified the following functions of the final modal particle 町 in a Chinese sentence: 1) softening of the intonation and deescalation of the situation; 2) creation of the communicative tone that is more natural and appropriate to the communicative situation; 3) emphasis of the speaker's feelings and emotions. These functions have been observed in declarative sentences, imperative sentences and rhetorical questions. In usual interrogative sentences the particle does not have a big influence on a sentence's meaning that can be explained by the process of its grammaticalization. The function of feeling and emotion's emphasis indicated by respondents confirms the idea that modus constructions might be the source of Chinese final modal particles.

Keywords: Chinese final modal particle, function of the particle ^m, semantic experiment, declarative sentence, imperative sentence, usual interrogative sentence, rhetorical question.

Research area: philology.

Citation: Simatova, S.A., Kurdyumov, V.A. (2021). The function of the final modal particle 啊 in Chinese dialogical text: the method of a semantic experiment. J. Sib. Fed. Univ. Humanit. Soc. Sci., 14(4), 522–534. DOI: 10.17516/1997-1370-0739.

[©] Siberian Federal University. All rights reserved

Corresponding author E-mail address: sonyachita14@mail.ru, vkplans@gmail.com ORCID: 0000-0002-5314-6009 (Simatova); 0000-0002-1810-4508 (Kurdyumov)

Функция конечной модальной частицы 啊 в китайском диалогическом тексте: метод семантического эксперимента

С.А. Симатова, В.А. Курдюмов

Московский городской педагогический университет Российская Федерация, Москва

Аннотация. Несмотря на большое количество исследований, посвященных проблеме функций конечных модальных частиц современного китайского языка. очень редко заключенные в них выводы подтверждаются экспериментально путем обращения к мнению носителей китайского языка. В настоящем исследовании для анализа функции частицы 町 использовалась процедура семантического эксперимента с привлечением метода статистической обработки данных. Для этого были выбраны отрывки из устных диалогических текстов, содержащие предложения с рассматриваемой частицей (повествовательные, побудительные, обычные вопросительные предложения и риторические вопросы). Респондентам предлагалось оценить, возможно ли в неизменяемом контексте исключить из предложения частицу и существует ли при возможности такого исключения смысловая разница между предложением с частицей и без нее. Проведенный анализ результатов семантического эксперимента позволил сделать вывод о следующих основных функциях частицы ण: 1) смягчение интонации и разряжение обстановки; 2) создание более естественного и соответствующего коммуникативной ситуации характера общения; 3) акцентирование заключенных в предложении чувств и эмоций. Перечисленные функции частица выполняет в повествовательных предложениях, побудительных предложениях и риторических вопросах. В обычных вопросительных предложениях частица оказывает уже довольно слабое влияние на смысл предложения, что в целом объясняется ее дальнейшей грамматикализацией. Указание респондентами на акцентирование заключенных в предложении чувств и эмоций при наличии частицы подтверждает тезис о возможности происхождения конечных модальных частиц современного китайского языка от модусных конструкций.

Ключевые слова: конечная модальная частица китайского языка, функция частицы ण (可, семантический эксперимент, повествовательное предложение, побудительное предложение, обычное вопросительное предложение, риторический вопрос.

Научная специальность: 10.00.00 – филологические науки.

Introduction

Functional unit 啊 has various usage in Chinese dialogical text. It can fill the position of final modal particle (嘿, 你怎么不高兴啊? – *Hey, why are not you happy* **[particle]**¹?). It can be a topic marker in the middle of the sentence (刘易阳啊, 你拿我话当什么了你? – *Liu Yiyang* **[topic mark]**, you don't believe me, do you?). Or it also can demonstrate a single usage with a pause before particle and different types of intonations afterwards (你别生气,啊? – Don't get angry, okay?). The paper presents one of the most frequent options of functional unit 啊 in Chinese² dialogical text. It is the position of the final modal particle. In Taiwan, particle

¹ The examples are retrieved from a modern Chinese TV play *Naked Wedding* (2011, Zhang Yan – Producer).

² In this paper Chinese means Mandarin Chinese.

 $% _{\rm m} = 1000 \, {\rm m}^{-1}$ % is used more frequently, but the question of the equivalence ($m \approx {\rm m}^{-1}$, meds further explorations.

In ancient China, modal particles were first mentioned in the dictionary "Shuowen Jiezi" (《说文解字》). However, till the beginning of the 20th century all descriptions of this language category were tightly connected with the classical Chinese language (文言) in which modal particles differed from modal particles of Baihua (colloquial Chinese). As Baihua spread after "May Fourth Movement" in 1919, the number of linguistic works describing lexical and grammatical phenomena of colloquial Chinese has increased. Particularly, functions of final modal particles of Baihua were described in details in the works of Lü Shuxiang (Lü Shuxiang, 2014, first published 1956), Chao Yuan-Ren (Chao Yuan-Ren, 2015, first published 1968), Zhu Dexi (Zhu Dexi, 1982), Wan Li (Wan Li, 2014, first published 1985), Sun Rujian (Sun Rujian, 1999), Qi Huyang (Qi Huyang, 2002, 2011), Cui Xiliang (Cui Xiliang, 2012), Teng Shou-hsin (Teng Shou-hsin, 2019) etc.

In Russian sinology Chinese particles were mainly described within the framework of the problems of Chinese parts of speech and description of various types of Chinese functional words. But there are a lot of narrowly specialized research papers, devoted to Chinese final modal particles, which have been published recently. For example, there are papers, which describe the most common particles of contemporary Chinese (Simatova, 2014), functions of individual particles (Kravchenko, 2016), intonation modifications of particles in the flow of the speech (Soktoeva, 2018), etc. Besides, very often not only particles of Putonghua (standardized Chinese language) are being investigated, but also dialect particles, which have much greater variety.

The essence of the position of final modal particle can be disclosed through its participation in the construction of the predicative structure of a message. Such an explanation was proposed in the framework of V.A. Kurdyumov's Predicational conception, which takes Topic and Comment as basic theoretical notions (Kurdyumov, 2013). The Predicational conception explains the change of the emotional coloring of the sentence after adding a modal particle as a change of modus or relationship between modus and address in a message (Kurdyumov, 2014: 39).

Modus is an external topic for proposition, or dictum³. Explicitly modus is presented in so-called explicit modality constructions, for example, *I am glad that..., I'm surprised that...,* etc. Address is interpreted as even more external topic, which comment is a combination of modus and dictum. Verbally address is usually expressed through different addressing forms. However, in Chinese, address is often harmoniously combined with modus, forming a conventional modus-address unity as a topic for dictum. These are such expressions as *I tell you, I ask you,* etc.

From the perspective of positional morphology, a section of the Predicational conception, Chinese final modal particles are the result of the folding of subjective-modal constructions (or explicit modality constructions), they replace an additional predicate of subjective modality in a sentence (Kurdyumov, 2014: 39). According to positional morphology, the particle POS route⁴ is associated with the further strengthening of its functional features and gradual weakening of connection with its primary subjective-modal meaning. In some cases, Chinese native speakers already regard particles as just means of arranging pauses, labeling some elements of a statement and creating a smoother rhythm of the speech.

There are six groups of modal particles that are most common for contemporary Chinese. These are a group of "ba" (吧, 呗, 罢了), a group of "ne" (呢), a group of "ma" (吗, 嘛), a group of "la" (了, 啦), a group of "a" (呵 and its phonetic varieties 呀, 哇, 哪) and a group of "de" (的). The particles' functions of the first four groups were described in details in V.A. Kurdyumov's paper (Kurdyumov, 2014). The current paper supplements the materials of this research with the description of the main functions of the final modal particle 啊 and its phonetic varieties.

³ For more details, see (Kurdyumov, 1999: 162).

⁴ About the notion "route" see (Kurdyumov, 2005).

The grammar dictionary of Lü Shuxiang (Lü, 1999, first published 1980) has a section devoted to the functional unit 啊. The cases of using 啊 as the final modal particle are described in this dictionary in declarative, imperative, exclamatory, usual interrogative sentences and rhetorical questions. Some meanings listed in the dictionary are in fact related to sentences with 啊, but not actually to the particle itself. For example, it is stated that the intonation of reminding, explaining and a shadow of impatience are often observed in declarative sentences (Lü, 1999: 46). In our opinion, this is just the description of the situations, for which the using of the sentences with a final modal particle 啊 is guite common. The dictionary indicates only two functions of the particle itself. These are, firstly, the function of softening intonation in usual interrogative sentences and rhetorical questions, and, secondly, the function of turning a statement into a question (Lü, 1999: 46).

The main function of the final modal particle 啊 has been already clearly identified and demonstrated by Ch. Li and S. Tompson. As for the most of Chinese final modal particles, its function is to reduce the categoricalness of the statement that leads to softening of the intonation (Li & Tompson, 1989: 313). Ch. Li and S. Tompson emphasized several times that the expression of impatience, warning, friendly attitude and other various meanings is not a direct function of the particle 啊, all these meanings are enclosed in the sentences (Li & Tompson, 1989: 316). It should be mentioned that some meanings may be related to the refraction of the particle main function of the categoricalness' reduction in a concrete sentence. For example, if the categoricalness is reduced, the order is becoming a kind request, and the statement is getting a more friendly tone. It has been found out that there are not many linguistic studies in China nowadays that are especially dedicated to the analysis of the function of the final modal particle 啊 in Putonghua. According to the topics of the papers available for reading in the China Knowledge Resource Integrated Database CNKI (中国知网), Chinese linguists today are more concerned about the problem of this particle acquisition by Chinese children and foreigners who are learning Chinese as a

foreign language and also about the problem of the basic functions of this particle in different Chinese dialects.

Statement of the Problem

Although there has been already proposed quite a clear and comprehensible explanation of the particle 啊's main function, in our opinion, it cannot be considered as exhaustive. Firstly, the research of the particle 町 made by Ch. Li and S. Tompson is a small section of a solid monograph on Chinese Grammar, so it probably doesn't present all variety of sentence types with this particle. Secondly, it seems that the examples of sentences with the particle 啊 are either composed by the authors themselves, or borrowed from the previous studies. Since the usage of final modal particles is marked as a feature of a spoken language, for reliable conclusions we consider it necessary to analyze particle functions basing on the examples selected from real dialogical texts. Thirdly, the usage of final modal particles is very subjective. It is reasonable to organize a semantic experiment, i.e. appeal to the opinion of native speakers for the purpose of further analysis and generalization from a linguist's point of view. Fourthly, despite the recognition of the opinion that sentences with and without a particle differ in meaning in some way, this statement has not been objectively confirmed yet, for example, by using statistical data processing methods⁵.

We consider that a deeper analysis with using the method of a semantic experiment will allow to see whether the Predicational conception is right about the nature of Chinese final modal particle. Particularly, whether native speakers feel the so called "hidden modus" intuitively in the sentences with a particle.

Basing on the previous linguistic works and our own observations we can formulate the hypothesis of the current research: Chinese native speakers in most cases must feel the difference between sentences with and without the particle ^{ref} because of so called "hidden modus" in the semantics of the particle; but there should be some cases when native speak-

⁵ Statistical approach is widely used by linguists nowadays, including specialists in Chinese language, for example in (Jiang Menghan, Shi Dingxu, Huang Chu-Ren, 2016).

ers don't see big difference between sentences with and without the particle, because of the weakening of the particle's subjective-modal meaning. The task is, firstly, to identify those cases, when the difference between sentences with and without the particle is obvious and to describe the function of the particle in these cases, and, secondly, to identify those cases, when there is no noticeable difference between sentences with and without the particle.

Steps and Methods

This study includes the following steps: 1) selection of Chinese dialogues from the TV play⁶ and further selection of the sentences with a final modal particle 啊 from these dialogues; 2) the distribution of the examples with the particle into four groups according to a sentence type, where the particle can be used, these are the groups of declarative sentences, imperative sentences, usual interrogative sentences and rhetorical questions; 3) selection of five sentences from each group for making a semantic experiment and compiling a questionnaire; 4) making a semantic experiment among Chinese native speakers; 5) statistical and qualitative analysis of the results of the semantic experiment; 6) conclusion about the functions of the final modal particle 啊 in various types of sentences in Chinese dialogical text.

The essence of a semantic experiment was discussed in details in the works of O.N. Seliverstova (Seliverstova, 2004). Such an experiment is an evaluation of a certain number of sentences by informants according to the objectives of a research. For example, informants may be given a sentence with a language unit No. 1 and asked whether it is possible or not in this context to replace a given language unit with a language unit No. 2. The task in our semantic experiment was the following: we offered informants a number of sentences with the final modal particle mand asked them to evaluate the possibility of excluding the particle from the sentence in the given context without changing the meaning of the sentence. We set the criteria for evaluating sentences without the particle on the scale of A. Timberlake (Timberlake, 1982: 309), for convenience, replacing his designations («no mark», «+», «?» and «*») by numeric as points: 4 points – acceptable, no difference from the sentence with the particle; 3 points – acceptable, in some way differs in meaning from the sentence with the particle; 2 points – marginal / infrequent; 1 point – unacceptable / rare.

During processing the results for each group of sentences, the weighted average (conditionally weighted average score) was determined using the following formula:

$$\bar{X} = \frac{\frac{\mu_1}{\sigma_1^2} + \frac{\mu_2}{\sigma_2^2} + \dots + \frac{\mu_i}{\sigma_i^2}}{\frac{1}{\sigma_1^2} + \frac{1}{\sigma_2^2} + \dots + \frac{1}{\sigma_i^2}}$$

where $\mu_1, \mu_2 \dots \mu_i$ are the arithmetic means for each question in the group, $\sigma_1, \sigma_2 \dots \sigma_i$ standard deviations for each question in the group⁷. For a more accurate determination of the weighted average for each group of estimates (i.e. for each group of sentences with the particle) we have also calculated the standard deviation of the measurement results and the standard deviation of the weighted average by the following formulas (Norin, 2009: 28):

$$S = \sqrt{\frac{1}{n-1} \sum_{i=1}^{n} \frac{1}{\sigma_i^2} (\mu_i - \bar{X})^2}$$

(standard deviation of the measurement results),

$$S_{\bar{X}} = S / \sqrt{\sum_{i=1}^{n} \frac{1}{\sigma_i^2}}$$

(standard deviation of the weighted average),

where n = 5 (the number of the rows of answers). The final result of the calculations was

⁶ We consider a modern Chinese TV play an appropriate source of language material for the research. Firstly, dialogues in TV plays have a certain degree of spontaneity (for example, final modal particles are often not written in scripts, but are pronounced by actors). Secondly, TV plays usually demonstrate only those patterns of speech behaviour that are most typical for a certain language community.

⁷ This formula is a more detailed variant of the weighted average formula $\overline{X} = \frac{\sum_{i=1}^{n} p_i \cdot \mu_i}{\sum_{i=1}^{n} p_i}$ (Norin, 2009: 28), where p_i is the weight, defined for each range of data (in our case, for the range of the scores respondents gave to the same question) as the value inversely proportional to the variance of this range, i.e. $1/\sigma_i^2$ (for more details see (Romanov & Komarov, 2002: 40-41)).

written as $\overline{X} \pm S_{\overline{X}}$. To achieve the highest accuracy, all calculations were performed in Microsoft Excel.

One of the prior similar semantic experiments has found out by calculations that a representative sample of 25-40 measurements can be considered sufficient (Suleimanova, 1986: 148-149). It means that it is enough to choose 5 sentences for questioning of 5-8 informants. That is why five sentences were selected for each group. For the convenience of the calculations, we questioned 10 informants.

For a semantic experiment, the quality of the informants is also very important. It is correctly noted that not all native speakers can take part in semantic experiments, because not everyone is able to treat the process of speech activity consciously (Seliverstova, 2004: 96). Precise testing of this ability is necessary only in case of complex semantic experiments, when there is a significant proportion of self-analysis of statements by respondents. In our experiment informants were offered quite simple questions, the answers on which did not require special analytic skills. That is why Chinese TV play, where the main storyline is the relationship between a guy and a girl. We believe that Chinese young people can understand the situations presented in the questionnaire better than the representatives of older generation, and therefore they are able to evaluate these situations most objectively.

The semantic experiment of the current study was supplemented by a qualitative analysis procedure. For doing this kind of analysis we asked respondents, who had chosen the number 3 (the sentence without the particle in some way differs in meaning from the sentence with the particle) while answering the question, to explain the difference between the sentences with and without the particle. Qualitative analysis was implemented for those groups of questions, where the weighted average after calculations was close to 3.

Results

After the questionnaire procedure the following groups of estimations were obtained for further statistical processing (see Tables 1, 2, 3 and 4).

Question number	Respondent Number									
Question number	1	2	3	4	5	6	7	8	9	10
Question № 1	3	3	4	1	3	3	4	3	4	3
Question № 2	3	3	3	1	3	3	3	3	3	4
Question № 3	3	1	1	1	1	3	1	3	1	1
Question № 4	3	3	4	3	3	3	4	4	3	3
Question № 5	3	3	3	3	3	4	4	3	4	4

Table 1. Estimations obtained in the group of declarative sentences

we considered it possible to choose a group of university students majoring in Linguistics and Philology (20-23 years old) as respondents. In our opinion, majoring in Linguistics and Philology develops the ability of elementary analysis of speech activity that is necessary in the framework of this study. The choice of the university students as respondents for the semantic experiment is determined by the nature of the language material: respondents were asked to evaluate sentences selected from the modern For the evaluation in the group of declarative sentences respondents were offered the following fragments from the Chinese dialogues⁸:

Question № 1

丈夫: 你别生气, 啊, 你得这么想, **咱这佳 倩和刘易阳迟早得结婚哪**, 你何必把这简单的 事情弄复杂了呢? 退一步海阔天空。(Husband:

⁸ For a more effective evaluation, brief descriptions of communicative situations were offered to respondents before fragments of dialogues.

				5							
Question number	Respondent Number										
	1	2	3	4	5	6	7	8	9	10	
Question № 1	3	4	3	3	1	3	3	3	3	3	
Question № 2	3	3	4	1	4	4	4	4	4	3	
Question № 3	3	3	4	1	4	4	4	3	4	4	
Question № 4	3	3	4	2	3	4	4	4	3	3	
Question № 5	3	3	4	1	4	3	4	3	3	4	

Table 2. Estimations obtained in the group of imperative sentences

Don't be mad, ah, let's put it this way: Jia Qian and Liu Yiyang will have to get married anyway [particle], there is no need to make the simple thing complicated. Take a step back.)

妻子:哪有海阔天空啊? 我看到的就是 坑。后面就是大坑。(Wife: Take a step back for what? What I see is a pit. There is a big pit behind.)

Question № 2

组长:这个工作不适合你。你真应该找一个 力所能及的工作。(Team leader: This job is not for you. You should really get a job you can do.)

组员:可是别的我都不会呀。(Team member: But I can't do anything else [particle].)

Question № 3

母亲: 这刚刚说是个毕业了, 这前面的路 多宽哪, **这多少人呢等着你去挑**啊, 是吧? 人外 有人, 天外有天, 这就高中就是就随便像玩闹 似的, 就他了呀。(Mother: You have just graduated. How wide is the road ahead? How many people are waiting for you to choose [particle], right? There is always someone better in the world, this high school is just like playing games, and you have chosen him.)

Question № 4

男朋友:嘿,你怎么不高兴啊?(Boyfriend: Hey, why are you so upset?)

女朋友:高兴什么呀我。(Girlfriend: Why should I be happy?)

男朋友:为什么不高兴啊?这件事充分地说明我刘易阳年富力强,百步穿杨啊。(Why not? This case fully shows me Liu Yiyang being young and vigorous [particle].)

Question № 5

母亲: 你想想啊。你从一进高中, 你俩就 早恋。**你这学习成绩直线就往下降啊。**本来 能,考上重点呢, 结果勉勉强强, 啊, 上了二 本。(Mother: Just think about it. Since you entered high school, you two fell in love. Your grades were plummeting [particle]. Originally, you could enter a key university, but here we are, ah, you have barely entered an ordinary second-rate university.)

For the evaluation in the group of imperative sentences respondents were offered the following fragments from the Chinese dialogues:

Question № 1

女朋友: 啊, 背一遍, 联络守则。(Girlfriend: Recite the rules of communication.)

男朋友:哎呀,不背了。(Boyfriend: Oh, no.)

女朋友:背呀。(Girlfriend: Do it [particle].)

Question № 2

男朋友:不是不是,你,你等会儿啊,你等 一会儿等一会儿等一会儿,挺高兴的一事怎么 说到这事了?你让我往前捯两句呀,我刚才说... (Boyfriend: No no, you, wait a minute [particle], just a minute, a minute! A very nice thing has happened, right? How have we started to talk about this? Let me back to the previous topic, I have just said...)

Question № 3

男朋友:不是不是,你,你等会儿啊,你等 一会儿等一会儿等一会儿,挺高兴的一事怎 么说到这事了?你让我往前捯两句呀,我刚才 说... (Boyfriend: No no, you, wait a minute, just a minute, a minute! A very nice thing has happened, right? How have we started to talk about this? Let me back to the previous topic [particle], I have just said...)

Question № 4

丈夫: 不着急不着急不着急。亲爱的, 我 想一主意来。咱来商量啊。(Husband: Easy, easy. Honey, I have an idea. Let's talk [particle].)

妻子: 你说。(Wife: Go on.)

Question № 5

男朋友:娇娇你...**你别走哇。**你,你...再坐 一会儿,好不好?再坐一会儿。(Boyfriend: Jiaojiao you... Don't go [particle]. You, you... Stay for a while, will you? Stay for a while.)

Question № 3

儿子:妈,你怎么还不睡啊?(Son: Mom, why are you still up [particle]?)

母亲:儿子啊,有些事情我得跟你说清楚 啊。(Mother: Son, there's something I have to tell you.)

Question № 4

丈夫:那生米已经煮成熟饭了,那你说怎 么办哪?(Husband: The rice is cooked – what done is done. So what can you suggest [particle]?)

妻子:正因为生米煮成熟饭了,我才可以 退一步,但是我退的一步最多就是让他们住 到咱们家来。(Wife: Just because the rice is cooked, I can take a step back, but the only

Question number	Respondent number									
Question number	1	2	3	4	5	6	7	8	9	10
Question № 1	3	4	4	3	3	3	3	3	4	4
Question № 2	3	4	3	3	3	4	4	4	4	4
Question № 3	3	3	4	3	4	4	4	4	3	4
Question № 4	3	4	4	3	4	4	4	3	4	4
Question № 5	3	4	4	1	1	3	4	3	1	2

Table 3. Estimations obtained in the group of usual interrogative sentences

For the evaluation in the group of usual interrogative sentences respondents were offered the following fragments from the Chinese dialogues:

Question № 1

母亲: 你要是同事的话, 你让我看看。这样 才能证明, 你真的是给你同事发信息。(Mother: If it is a colleague, let me have a look. Only if you do so, you can prove that you're actually texting your colleague.)

女儿:不是,那凭什么呀? (Daughter: No, why should I [particle]?)

Question № 2

母亲: 我问你啊, 你跟刘易阳分还是没分 哪? (Mother: I want to ask you one thing: have you and Liu Yiyang broken up or not [particle]?)

女儿: 分了。(Daughter: Yes, we have.)

step I can take back is let them live in our house.)

Question № 5

男朋友:嘿,你怎么不高兴啊?(Boyfriend: Hey, why are you so upset [particle]?)

女朋友:高兴什么呀我。(Girlfriend: Why should I be happy?)

For the evaluation in the group of rhetorical questions respondents were offered the following fragments from the Chinese dialogues:

Question № 1

儿子: 我取点儿钱用。(Son: I'll draw some money.)

母亲: 不行。(Mother: No.)

儿子: 什么叫不行啊? 我的工资卡, 你快,

给我拿来。(Son: What do you mean "no" [particle]? It's my pay card. Come on, give it to me.)

O	Respondent number									
Question number	1	2	3	4	5	6	7	8	9	10
Question № 1	3	3	4	2	4	4	4	4	1	4
Question № 2	3	3	4	3	3	3	4	4	1	4
Question № 3	3	3	4	2	3	4	4	3	1	4
Question № 4	3	4	4	1	4	4	4	4	4	4
Question № 5	3	3	4	3	3	4	4	4	1	4

Table 4. Estimations obtained in the group of rhetorical questions

母亲: 我是你妈。什么你的我的。(Mother: I'm your mother. Does it matter yours or mine?)

Question № 2

母亲: 谁当初答应我说娶了媳妇儿住在家 里的? (Mother: Didn't you promise me before to live at our home after getting married?)

儿子:当初是当初。(Son: It was before.)

母亲: 什么叫当初是当初哇? 家里头没有地 方住吗? 是小了点儿, 可是足够你们住了。(Mother: What do you mean "before" [particle]? Isn't there a place at home to live? Yes, it's small, but enough for you two.)

Question № 3

男朋友:你的意思是说,我刘易阳要当爸爸了。(Boyfriend: You mean I'm going to be a father.)

女朋友:小声点儿。(Girlfriend: Keep quiet.) 男朋友:为什么要小声啊?(Boyfriend: Why should I keep quiet?)

女朋友: 丢人现眼。(Girlfriend: Disgrace.) 男朋友: **什么叫丢人现眼呀?** 这么值得普天 同庆的事, 我一定要说出来。(Boyfriend: What do you mean "disgrace" [particle]? I must say it out loud because it's worthy of universal celebration.)

Question № 4

组员:刘易阳,你还是不是个男人哪?你是 不是给苏珊打了电话把我给撸下来了?(Team member: Liu Yiyang, are you still a man [particle]? Did you call Susan to denounce me?)

组长:没错。(Team leader: That's right.)

Question № 5

丈夫: 你别生气, 啊, 你得这么想, 咱这佳 倩和刘易阳迟早得结婚哪, 你何必把这简单的 事情弄复杂了呢? 退一步海阔天空。(Husband: Don't be mad, ah, let's put it this way: Jia Qian and Liu Yiyang will have to get married anyway, there is no need to make the simple thing complicated. Take a step back.)

妻子: 哪有海阔天空啊? 我看到的就是坑。 后面就是大坑。(Wife: Take a step back for what [particle]? What I see is a pit. There is a big pit behind.)

After statistical processing of the estimations in four groups by the formulas presented above, the following results were obtained (See Table 5).

According to the table 5, in groups of narrative sentences, imperative sentences and rhetorical questions the weighted average (including the deviation) is approximately equal to 3: group of declarative sentences -2.85(3,10-0,25) and 3,35 (3,10+0,25); group of imperative sentences -3,11 (3,21 -0,10) and 3,31 (3,21 + 0,10); group of rhetorical questions - 3,22 (3,30 - 0,08) and 3,38 (3,30 + 0,08). Thus, the respondents generally agree that in the indicated groups there is some semantic difference between sentences with and without particle. In the group of usual interrogative sentences, the weighted average is in the middle between 3 and 4. With a deviation to the lower limit (-0.11), the weighted average approaches 3 (3,43), and with a deviation to the upper limit (+0.11) it approaches 4 (3,65). Therefore, it is possible to conclude that regarding the group of usual interrogative sentences, the opinions of respondents have been varied: one part believes that sentences with and without particles differ in meaning, while the other part does not feel any significant semantic difference.

Table 5. The results of data statistical processing								
Group Weighted average		Standard deviation of the measurement results	Standard deviation of the weighted average	Result*				
Declarative sentences	3,10062483	0,865029980	0,247169327	3,10 ± 0,25				
Imperative sentences	3,213189865	0,260620115	0,09607287	$3,21 \pm 0,10$				
Usual interroga- tive sentences	3,541436464	0,436586457	0,10860254	3,54 ± 0,11				
Rhetorical questions	3,3001443	0,192821164	0,084001589	3,30 ± 0,08				

Table 5. The results of data statistical processing

*For the convenience of analysis, the weighted average and standard deviation of the weighted average are recorded in rounded forms.

Discussion

According to the results of statistical data processing, the weighted average score is equal to 3 in the groups of declarative sentences, imperative sentences and rhetorical questions. That is why a qualitative analysis of respondents' opinions has been implemented in these three groups.

Four main criteria used by respondents for distinguishing between sentences with and without the particle were identified (See Table 6).

The criterion "Harshness of intonation" is indicated in most publications, discussing the functions of the final modal particles of contemporary Chinese. Respondents note that declarative and imperative sentences with the particle ^mF sound more tactful, so a listener is more likely to accept the point of view or request contained in the speaker's sentence with the particle. Particularly, the particle function of categoricalness reduction appears in imperative sentences, when a command turns into a kind request or even into a supplication. We can take as an example the sentence with the particle from the question № 1 (group of imperative sentences): 背牙 (Repeat [particle]). It sounds like a wish of a cranky girl, and does not have such categoricalness as in the command 背 (Repeat!) without the particle. In rhetorical questions, the function of the particle to soften intonation also appears in categoricalness reduction: interrogative (and therefore less categorical) intonation, according to respondents, becomes more evident. It is obvious that the softening of intonation with the help of the particle leads to de-escalation of the situation, making communication process more easy-going and informal. This fact is emphasized by many respondents for all groups of sentences.

Sentences with the particle 啊 in all groups are regarded by respondents as more natural (更通顺, 更加生活化, 比较自然), more coherent (更连贯) and more corresponded with speech habits of Chinese native speakers (符合使用习 惯). Moreover, respondents consider sentences with the particle 啊 suitable for the communicative situations concerned (disputes and quarrels). Thus, even in situations of confrontational interaction, Chinese native speakers usually choose a sentence with the particle, the use of

	Criterion	Sentence without the particle	Sentence with the particle
1	Harshness of intonation	Harsh intonation	Softened intonation
2	Naturalness of intonation	Less natural intonation	More natural intonation
3	Appropriateness for the commu- nicative situation	Less appropriate	More appropriate
4	The intensity of feelings expression	The feeling is expressed less in- tensively	The feeling is expressed more in- tensively

Table 6. Criteria for distinguishing between sentences with and without the particle

which, as mentioned above, helps to deescalate the conflict situation.

The most interesting is the last criteria "The intensity of feelings expression". Although respondents consider that the particle 啊 is used to reduce the categoricalness of sentences and to soften intonation, they also note that key feelings expressed in sentences by different lexical means are more evident in sentences with the particle 听. It should be mentioned that we have not taken into consideration those answers of respondents that simply identify the particle 啊 as a means of expressing feelings. This is a common mistake in analyzing a sentence with a final modal particle: the meaning introduced by the particle into the sentence is not distinguished from the meaning of the sentence itself. Many respondents noted precisely the more explicit expression of the feeling that could be also observed in the sentence without the particle. For example, in the question N_{2} 2 (group of declarative sentences) for the sentence with the particle one of the respondents indicated the emphasis on the speaker's hopelessness and his desire not to be fired (更重点 突出组员别的都不会的一种无奈和不想被辞掉 的心情). Another example is the sentence with the particle from the question N_{2} 5 (group of imperative sentences). For it, one of the respondents indicated a more explicit expression of the speaker's desire to explain the situation (想 要解释的心情更加强烈).

We believe that the particle function of emphasizing speaker's feelings and emotions which is intuitively felt by Chinese native speakers, confirms the idea that Chinese final modal particles have been originated from modus constructions (Kurdyumov, 2014: 39). This function also correlates with the function of final modal particles, mentioned above (to soften the intonation and to deescalate the situation), because in a relaxed atmosphere a person is more inclined to express his sincere feelings and emotions. The fact that in the group of usual interrogative sentences respondents did not see a significant difference between sentences with and without the particle can be explained from the perspective of positional morphology by the further movement of the particle along its route: in interrogative sentences, the particle

is gradually losing connection with its subjective-modal meaning and turning into a "pure" functional unit. The function of interrogative sentences themselves also stimulates this process: requesting information may not require the expression of any feelings and emotions, while in declarative, imperative sentences and rhetorical questions it can be necessary.

Conclusion

As a result of the conducted semantic experiment, including statistical and qualitative analysis of respondents' answers, the following functions of the final modal particle 啊 have been identified in Chinese dialogical text: 1) softening of the intonation and deescalation of the situation during the process of communication; 2) creation of the communicative tone that is more natural and appropriate to the communicative situation; 3) emphasis of the speaker's feelings and emotions. These functions have been observed in declarative sentences, imperative sentences and rhetorical questions. As for usual interrogative sentences, Chinese native speakers don't feel a big influence of the particle on such sentences' meaning already. It can be explained by the further grammaticalization of the particle, i.e. the process of its turning into a "pure" functional unit.

Thus, our hypothesis has been confirmed: Chinese native speakers in most cases (declarative sentences, imperative sentences and rhetorical questions) feel a certain difference between sentences with and without the particle "T, but in some cases (usual interrogative sentences) this difference is not noticeable. This fact can be explained by the statements of the Predicational conception about the existence of so called "hidden modus" in the semantics of a modal particle and about a possibility of a gradual weakening of a Chinese modal particle's subjective-modal meaning.

The current research has illustrated verification potential of a semantic experiment for investigating Chinese modal particles. On the one hand, the procedure of a semantic experiment involves native speakers, and only they often can catch the meaning of such pragmatically complicated language units as modal particles. On the other hand, a semantic experiment gives the tools for statistical processing of data that makes the research more objective.

In the context of the problem discussed it would be interesting to analyze the particle π

function in organizing Chinese dialogical text (for example, marking a topic, etc.) and to describe the functions of interactive inserts presented by the functional unit ^m.

References

Chao, Y.-R. (2015). A Grammar of Spoken Chinese. Beijing, the Commercial Press, 382 p.

Cui, X.L. (2012). Modal Meaning and Function of Modal Particle "Ha". In *Collection of Linguistic Essays of Cui Xiliang*, 217-227.

Jiang, M.H., Shi, D.X., Huang, Ch-R. (2016). Transitivity in Light Verb Variations in Mandarin Chinese – A Comparable Corpus-based Statistical Approach. In *Proc. 30th Pacific Asia Conference on Language, Information and Computation (PACLIC 30).* Seoul, Republic of Korea, 459-468.

Kravchenko, E.V. (2016). Modal'naia chastitsa ba: evoliutsiia, osobennosti funktsionirovaniia I osnovnye znacheniia [The Modal Particle Ba: Evolution, Functioning Patterns and Basic Meaning]. In *Teoreticheskaia I prikladnaia lingvistika [Theoretical and Applied Linguistics*], 2 (4), 14-22.

Kurdyumov, V.A. (2013). Chinese Language and Revision of Some Notions in General Linguistics. In *International Symposium on Language and Communication: Exploring Novelties*, Izmir, Ege University Ataturk Cultural Center, 277-284.

Kurdyumov, V.A. (1999). Ideia i forma [Idea and Form]. Moscow, Voennyi un-t, 194 p.

Kurdyumov, V.A. (2005). Kurs kitaiskogo iazyka. Teoreticheskaia grammatika [A Course in Theoretical Chinese Grammar]. Moscow, Tsitadel'-Treid, Lada, 576 p.

Kurdyumov, V.A. (2014). Morfologicheskii uroven' kitaiskogo iazyka kak izoliruiushchego topikovogo. Sushchnost' I soderzhanie pozitsii chastitsy [The Morphological Level in Chinese: The Essence and Use of Particle Position]. In Vestnik Moskovskogo Gorodskogo Pedagogicheskogo Universiteta, seriia "Filologiia. Teoriia iazyka, Iazykovoe obrazovanie" [Vestnik of Moscow City Teacher Training University, Series "Phylology. Theory of Linguistics. Linguistic Education"], 1 (13), 37-46.

Li, Ch.N., Tompson, S.A. (1989). *Mandarin Chinese: A Functional Reference Grammar*. Berkley & Los Angeles, Univ. of California Press, 691 p.

Lü, Sh.X. (ed.) (1999). *Eight Hundred Words of Modern Chinese Language*. Beijing, the Commercial Press, 760 p.

Lü, Sh.X. (2014). Essentials of Chinese Grammar. Beijing, the Commercial Press, 681 p.

Norin, V.A. (compiler) (2009). Metrologiia, standartizatsyia i sertifikatsyia. Chast' II: metodicheskie ukazaniia po vypolneniiu kursovoi raboty dlia studentov mekhanicheskikh spetsial'nostei ochnoi i zaochnoi form obucheniia [Metrology, Standardization and Certification. Part II: Instructional Guidelines of Doing Mechanical Major Projects]. Saint-Petersburg, SPbGASU, 44 p.

Qi, H.Y. (2002). *Modal Particles and Modal System*. Hefei, Anhui Education Publishing House, 323 p. Qi, H.Y. (ed.) (2011). *Dictionary of Contemporary Chinese Modal Components*. Beijing, the Commercial Press, 567 p.

Romanov, V.N., Komarov, V.V. (2002). Teoriia izmerenii. Analiz I obrabotka eksperemental 'nykh dannykh [Measurement Theory. Analysis and Processing of Experimental Data]. Saint-Petersburg, SZTU, 127 p.

Seliverstova, O.N. (2004). *Trudy po semantike* [Studies in Semantics]. Moscow, Iazyki slavianskoi kul'tury, 960 p.

Simatova, S.A. (2014). Chastitsy kak sposob vyrazheniia modal'nosti v kitaiskom iazyke [Particles as a Means of Expressing Modality in Chinese]. In *Vestnik Sankt-Peterburgskogo universiteta, seriia "Vostokovedenie i afrikanistika" [Vestnik of Saint Petersburg University, Series "Asian and African Studies"*], 4, 23-36.

Soktoeva, O.Ts., Zou, H. (2018). Izmeneniia zvukov v potoke rechi na primere chastitsy "a" [Sound Stream Changes in the Flow of the Speech in Chinese Language Based on the Example of the Particle "a"]. In *Materialy vserossiiskoi nauchno-prakticheskoi konferentsii "Lingvistika i mezhkul'turnaia kom*-

munikatsiia" [Materials of all-Russian scientific and practical conference "Linguistics and intercultural communication"]. Chita, 20-22.

Suleimanova, O.A. (1986). K obosnovaniiu eksperemental'noi metodiki v semantike [Argumentation of Experimental Methods in Semantics]. In *Grammaticheskie i semanticheskie issledovaniia iazykov raznyh system* [*Grammatical and Semantic Studies of Languages Related to Different Systems*], Moscow, Institut iazykoznaniia, 142-151.

Sun, R.J. (1999). *Modality and Tone*. Beijing, Publishing House of China Federation of Literary and Art Circles, 306 p.

Teng, Sh.-h. (ed.) (2019). An A to Z Grammar for Chinese Language Learners. Xinbei, Linking Publishing Co., 368 p.

Timberlake, A. (1982). Invariance and the Syntax of Russian Aspect. In *Tense-Aspect: Between Semantics & Pragmatics*, ed. by Paul J. Hopper, Amsterdam/Philadelphia, John Benjamins Publishing Company, 305-331.

Wan, L. (2014). *The Contemporary Chinese Grammar*. Beijing, Zhonghua Publishing House, 464 p. Zhu, D.X. (1982). *Lecture notes on Grammar*. Beijing, the Commercial Press, 231 p.