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The relationship between multilingual ability and poverty in Southwest China

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Abstract: Language plays a pivotal role in poverty alleviation. This article aims to explore the relationship between multilingual ability and poverty in Southwest China. By adopting a mixed design, this article studies the multilingual ability, occasions for language use, and attitudes towards the importance of language of the participants, as well as the correlations between the participants' multilingual ability and the cause of poverty in relation to monthly household income. The sample comes from the mainstream Han ethnic group and 13 ethnic minority groups in 34 border poverty counties in Yunnan, Guangxi, and Tibet. The investigation concludes that Mandarin Chinese ability and local dialect ability quantitatively influence the income of the documented households, while ethnic minority language ability and English language ability qualitatively influence their household income to some degree. It is hoped that this study will provide both theoretical and practical implications for rural language strategies in the post-poverty alleviation period and rural revitalization in China.

Keywords: ethnic minorities; multilingual ability; poverty; relationship; Southwest China

1 Introduction

Language is a tool for communication and exchange, which has a fundamental role in poverty alleviation. Yunnan, Guangxi, and Tibet, all located on the southwest border of China, are the areas with the largest variety of ethnic minorities and are the deep poverty areas in the three regions and three prefectures of the country. Thus,

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they are the key areas of the national precision poverty alleviation work and the main battlefield for the national poverty eradication efforts.

Language contributes to poverty eradication, which has a special role in targeted poverty alleviation in Southwest China. There are many ethnic minorities in the border areas, and the language situation is complicated. Which ethnic minority mother tongues and other languages do people use? What role does multilingual language proficiency play in poverty alleviation, and what is its relationship with poverty? These questions are of great value to the study of the contribution of language in the process of social development, for the deep integration of the southwest border areas into "the Belt and Road Initiative" construction and for the completion of the task of poverty alleviation and the rural revitalization strategy.

China is a vast multi-ethnic country with 55 ethnic minorities, each with unique natural and social living environments, which are the creators of minority cultures, the inheritors of minority folklore, and the speakers of minority languages. From a linguistic perspective, the ability of ethnic minorities to master two or more languages, including their mother tongue, regional dialects, Mandarin Chinese, and foreign languages, China is a multi-ethnic and multilingual country (Dai 2007; Feng and Adamson 2009). Multilingual ability in this article refers to the ability of ethnic minority populations to master their mother tongue, Mandarin Chinese, local Chinese dialects, and foreign languages simultaneously, which is an important part of national language competence. Poverty in this article is based on the national rural poverty alleviation standard of 2,736 RMB yuan per capita net income of farmers in 2013 as the identification standard (Poverty Alleviation and Development Office of State Council 2014), and the shortfall amount of the documented poor households is the scope of poverty research.

This article took the following ethnic groups as the research subjects, i.e. Han Chinese and Lisu, Tibetan, Zhuang, Pumi, Naxi, Dai, and other ethnic minority groups' documented poverty households in 34 border poverty counties in Yunnan, Guangxi, and Tibet, and explored the correlations between their multilingual ability and the cause of poverty in relation to monthly income and poverty. It is expected that this study will provide theoretical support and research examples for revitalizing rural language strategies in the post-poverty alleviation period.

2 Literature review

2.1 Multilingual ability and poverty

Scholars have studied the relationship between language and poverty from different perspectives, in hopes of improving the theory of language poverty alleviation. At a

national level, there is a significant relationship between linguistic diversity and national economy. As a whole, rich areas have low linguistic diversity, while poor areas have high linguistic diversity geographically (Schultz 1981; Shio 2000; Wayne 2009).

Nettle (2000) proposed the Fishman-Pool hypothesis, a theory widely accepted which states that a country with a high degree of linguistic diversity is always underdeveloped or semi-developed, while a highly developed country always has a high degree of linguistic unity. In other words, linguistic unity is positively correlated with economic development; there is an inverse correlation between linguistic diversity and economic development. That is, linguistic diversity or linguistic fragmentation hinders a country's development, while highly developed countries inevitably abandon multilingualism and move toward relatively uniform and monolingual development.

Wang and Steiner (2015) speculated the hypothesis proposed by Nettle citing the case of Japan and the Netherlands, two countries that are relatively monolingual and have well-developed economies. In contrast, the situation in India is the opposite, with a total of 1,652 languages and dialects and a relatively backward economy. But some studies opposed this hypothesis. For example, Galbraith and Benitez-Galbraith (2009) said that the relationship among linguistic diversity, ethnic differentiation, and economic behavior is complex, and the controversy is open.

However, the Fishman-Pool hypothesis in China presents two scenarios. The first is the coexistence of multiple languages and dialects in the coastal provinces of China, such as Shanghai, Jiangsu, and Zhejiang, where the economy is highly developed; in other cities of China, there are examples of the negative effects of linguistic diversity on economic development (Li 2019). The second argues that the relationship between language and economic development is not a simple linear one, but a probabilistic one, and that linguistic diversity has an impact on economic growth and related variables.

At a community level, language ability is most closely related to economic status and family upbringing. Some research has attempted to explain the lower language ability of children from impoverished immigrant or urban families, which is the promotion of universal access to help the poor, a pathway for families in poor areas to improve their common language skills and alleviate poverty. Spolsky (2004, 2009) believes that 10 areas such as family and school are the smallest unit of language management, and the core of all language issues is "diversity" (Grin 1999). Mahurin-Smith et al. (2021) have expounded the rare vocabulary production in school-age narrators from low-income communities. Barachetti et al. (2022) have discussed the vocabulary production in toddlers from low-income immigrant families exposed to Romanian–Italian and Nigerian English–Italian. Finkel et al. (2020) have analyzed the higher utilization of social services associated with higher language scores in children from deeply impoverished urban families. Florit et al. (2021) have explicated

the home language activities and expressive vocabulary of toddlers from low socioeconomic status monolingual families and bilingual immigrant families. All the scholars agreed that the low language ability of the children is associated with the low income of their families.

At an individual level, multilingual ability is positively correlated with labor income and plays a decisive role in economic status (Schultz 1981). Study language from economic perspective provides a new perspective from language and income and language to socioeconomic status. Language is a form of human capital, and this capital can also generate economic benefits, which are either direct or indirect, with three broadly different outcomes. The first is that language ability determines cultural level, educational level, and career development. The frequency of English use in Chinese, Malay and Indian families in Singapore is on the rise, and there is a positive correlation between education level and English use. The bilingual or multilingual ability of ethnic minorities brings them more opportunities and success in school, life, and even employment (Posel and Zeller 2016). The second is the impact of multilingualism on income in ethnic minority areas. For example, a study by Yingji and Zhang (2016) in the Tibetan areas of Qinghai province found that Chinese language ability significantly correlated to income, and although the correlation between ethnic minority language (Tibetan) ability and income was significantly weaker, the role of Tibetan language in social life was very significant and added value. A study by Bian et al. (2019) in Dongxing County, Guangxi province explained that multilingual ability enhances residents' own employability, provides access to more employment opportunities and stable sources of income, and positively correlates to their average annual income. The third is the relationship between foreign language human capital and returns on competence and employee wages. Using data from the China General Social Survey 2006, Zhang (2008) stated that foreign language ability has higher economic returns in China after controlling for a series of variables reflecting individual characteristics, such as education, work experience, industry, occupation, and workplace.

2.2 Multilingual ability and rural revitalization

Some in-depth studies on language and poverty have come out, bringing some new implications for multilingual ability and rural revitalization. Findings include that language serves as a facilitating factor in the whole system of poverty alleviation and elimination. Yin et al. (2022) stated that, based on the function of language as a knowledge carrier, information carrier, and cultural carrier, it can help villages achieve talent revitalization, organizational revitalization, cultural revitalization, industrial revitalization, and ecological revitalization by implementing education in

the common national language (Mandarin Chinese) and script, foreign language and cross-border language education, common sign language and Braille education, improving rural language governance, broadening the scope of language services, and investigating and developing rural language and cultural resources. Dawa Drolma (2022) pointed out that at present, in ethnic minority areas, the economic attributes of language are mainly reflected in two ways: one is to learn and use the common language (Mandarin Chinese) and script to facilitate communication with the outside world, employment in other places, expand markets, etc.; the second is to inherit and protect the language and culture of the ethnic group, combining it with the local tourism industry and cultural industry, thus promoting economic development. After investigating the language use of Zhongzha Village in Litang County, Sichuan province, Zhao (2022) thought that rural revitalization was closely related to rural language and livelihood, rural industrial language, and rural language education. The languages spoken in Zhongzha Village, in descending order of frequency, are Tibetan, Chinese and English. The use of Tibetan is complex, showing a multitude of variants influenced by dialect and religious factors, while the use of Chinese is composed of standard Mandarin Chinese and dialect variants, and the use of English is relatively simple. Qiu and Yan (2022) believed that in some southern regions where mainly local dialects are spoken, the Mandarin Chinese ability of the farmers should be promoted in order to achieve rural revitalization. Some other scholars also emphasized the significance of improving Mandarin Chinese in the poverty alleviation of ethnic minority areas (Fan et al. 2020; Guo and Du 2021; Huang and Wang 2020; Li 2020).

Studies have reached a basic consensus that language is closely related to poverty and that poverty can be alleviated by improving language ability (e.g. Guo 2018; He and Zhang 2017; Li 2019; Wang 2018; Yu 2017; Zhang 2018, 2022; Zhao 2013). However, for poor regions and poor families, people's linguistic competence in the common language is often low or absent, and it is urgent to improve their Mandarin Chinese ability in order to help them to get out of poverty (Wang 2018). Studies have also found that linguistic diversity has an impact on both economic growth and related variables, and current Chinese empirical studies focus on the negative effects of linguistic diversity on economic development (Wang 2019). However, many scholars argue that emphasizing the importance of a unified language is not a negation of language diversity or an attempt to overlook ethnic minority languages and Chinese dialects (Dai and Dong 1996; Wang 2018, 2019). The relationship between a unified language and economic development is not simply linear but a probabilistic one.

To sum up, the following aspects have received little attention: (1) In terms of research subjects, empirical studies of language economics in China on language diversity and economic development, language proficiency, and income are mainly limited to cities and urban labor markets, and relatively few studies have been conducted in poverty-stricken areas and ethnic minority regions. (2) As for language

selection, language poverty alleviation not only refers to the national common language and script, but should also include local Chinese dialects, ethnic minority languages, and foreign languages, while there are only a few research results on the relationship between ethnic minority languages and poverty and the relationship between foreign languages and poverty. (3) In light of research methods, there is a lack of empirical quantitative and qualitative research results, and data processing methods are single and simple, and most do not use authoritative scientific data statistics and analysis software.

3 Research design

3.1 Research questions

This article focuses on the relationship between multilingualism and poverty among documented poor households, and specifically asks four questions:

(1) What is the general situation of language and language use of the households?
(2) What are the economic incomes of the households and the causes of poverty?
(3) Is multilingual ability (Mandarin Chinese, local Chinese dialect, ethnic minority language, and English) related to household income and causes of poverty?
(4) Are there any important predictors of multilingual ability that affect household income?

3.2 Research subjects

Through a convenience sampling method, the research subjects 2,682 school students from documented poor households surveyed in this study came from 34 poor border ethnic minority counties in Southwest China, including 30 in Yunnan (including all counties in Nujiang Lisu Autonomous Prefecture and Diqing Tibetan Autonomous Prefecture), 2 in Guangxi (Dahua County and Napo County), and 2 in Tibet (Dangxiong County and Qushui County), namely, 13 ethnic minority populated counties bordering Myanmar, Vietnam, Laos, India, Nepal, and Bhutan. There were 2,682 valid questionnaires issued and returned, and 195 heads of documented poor households (in most cases the parents) were interviewed.

3.3 Research instruments

This research mainly adopts a combination of quantitative questionnaire survey and qualitative interview methods. Based on Wang's (2019) scale, the questionnaire

"Multilingual Language Ability and Poverty Questionnaire" was adapted for quantitative data collection, and a self-designed "Interview Outline on Multilingual Ability and Poverty" was used for qualitative data collection. A pilot study was conducted in October 2019 with 68 students from documented poverty households who were studying at Yunnan Normal University, and two of those students participated in the interview in the pilot study, for the internal consistency reliability coefficient (Cronbach's alpha coefficient) of the questionnaire to be reached 0.956.

3.4 Data collection and process

In October 2019, the project team commissioned 98 primary and secondary school principals from the "Ten Thousand Principals" training program in Yunnan Province at Yunnan Normal University to carry out a paper-based questionnaire survey in 25 counties in Yunnan's poor ethnic minority areas, asking about parents' language ability, causes of poverty and family income, etc. From December 2019 to February 2020, the project team trained 118 college students from Yunnan Normal University to return to their villages located in Nujiang Prefecture and Diqing Prefecture and border counties in Yunnan during the winter vacation, and these students paid visits and conducted interviews in 282 documented poor households. From February to July 2020, the project team went to four poor counties, Dawa County and Napo County in Guangxi, and Dangxiong County and Qushui County in Tibet, collected the questionnaires, and interviewed the documented poor households.

The project team conducted descriptive statistics, Spearman rank-order correlation coefficient (also called Spearman's rho) analysis, and linear stepwise regression by SPSS. Data from all interviews were audio-recorded, transcribed, proofread, and processed using both the methods of meaning unit and content analysis.

4 Results

4.1 The general situation of language and language use of the documented poor households

4.1.1 Ethnic groups

Among the surveyed households, there are 13 ethnic minority groups: Yi, Zhuang, Lisu, Wa, Tibetan, Pumi, Naxi, Dai, Nu, Dulong, Bai, Miao, and Jingpo. Ethnic minorities account for four-fifths of the 2682 research subjects (82.7%), while Han Chinese constituted less than one-fifth (17.3%); 59.1% are native speakers of ethnic minority languages, and 40.9% are speakers of local Chinese dialects. The most

numerous ethnic group was the Wa, accounting for one-fourth of the population, and the least was the Jingpo and Dulong, each accounting for 0.2%.

4.1.2 Multilingualism and language ability

There are generally four languages spoken by the people from the documented poor households, namely, ethnic minority language, Mandarin Chinese, local Chinese dialects, and English. The project team asked the subjects to conduct self-evaluation of their language ability, which was divided into four levels, i.e. excellent, good, average, and poor. In terms of ethnic minority language ability, one-third of the subjects selected were good. A rating of poor was least common, accounting for nearly one-fifth. As for Mandarin Chinese language ability, most respondents rated themselves as average, accounting for about half, and the lowest percentage rated themselves as poor, with only 8.1%; 18.3% of them had participated in Mandarin Chinese training, and 28.3% had participated in special Mandarin Chinese training for ethnic minority groups. In regard to local Chinese dialect ability, they most frequently rated themselves as good, accounting for about two-fifths, and the poor, only 8.6%. As far as English ability was concerned, the most common self-assessment was average, accounting for one-third, and the least common self-assessment was excellent. Please note that the data on English ability refer to the foreign language ability of primary and secondary school students in the documented poor households. The specific data are shown in Table 1.

Table 1: Language ability.

Languages	Excellent (%)	Good (%)	Average (%)	Poor (%)	Uncertain (%)
Ethnic minority language	27.9	32.7	20.7	16.9	1.8
Mandarin Chinese	13.3	31.3	46.2	8.1	1.1
Local Chinese dialect	17.5	40.6	32.2	8.6	1.1
English	1.3	17.0	45.2	33.0	3.5

4.1.3 Occasions for language use

From Table 2, it can be seen that multilingualism is a common phenomenon. When communicating with family members or the same ethnic group, the documented poor households mainly use their own ethnic minority language and the local Chinese dialect, while Mandarin Chinese and the local Chinese dialect are more often used for going to government departments for business, shopping at marketplaces, chatting on the Internet and going on business trips or working out of town.

Table 2: Occasions for language use.

Occasions for language use	Language					
	Ethnic minority language	Local Chinese dialect	Mandarin Chinese + ethnic minority language	Mandarin Chinese	Foreign language	Other languages
Communicating with family members	38.7%	23.9%	16.0%	13.9%	0	7.2%
Communicating with their own ethnic group	41.6%	23.6%	16.0%	12.9%	3.5%	2.1%
Going to governmental departments for business	7.3%	28.8%	6.8%	40.3%	0	3.2%
Going shopping at marketplaces	10.0%	33.9%	7.6%	41.1%	2.9%	4.2%
Online chatting	11.4%	23.8%	8.6%	48.4%	2.3%	5.5%
Working or on a business trip out of town	8.4%	24.0%	7.5%	51.3%	3.1%	5.7%

4.1.4 Attitudes towards the importance of language

As is shown in Table 3, most of the interviewees evaluate Mandarin Chinese, local Chinese dialect, local minority language, and English as important for going to school, finding a job, working outside, getting information, being valued more, and earning a high income. Their attitudes towards the importance of the languages are ranked from the most to the least as Mandarin Chinese, English, local Chinese dialect, and ethnic minority language.

4.1.5 Motivation for language learning

Most of the respondents said that Mandarin Chinese, local Chinese dialect, ethnic minority language, and English help in finding a job, learning skills and techniques, communicating with the outside world, obtaining information, continuing education, or learning the language because the government requires them to do so. The order of the language varieties as to their importance for language learning ranked from the highest to the lowest is Mandarin Chinese, English, local Chinese dialect, and ethnic minority language.

Table 3: Attitudes towards the importance of language.

Importance of language	Attitudes							
	Mandarin Chinese		Local Chinese dialect		Ethnic minority language		Foreign language	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
For going to school	91.1%	2.4%	61.1%	10.8%	42.6%	18.3%	67.0%	6.9%
For looking for a job	90.5%	2.0%	54.4%	11.0%	35.9%	18.4%	62.6%	6.4%
For working out of town in future	87.4%	2.3%	50.1%	13.4%	33.4%	20.4%	59.7%	6.0%
For acquiring information outside	83.9%	3.1%	51.5%	11.6%	35.6%	17.4%	61.0%	5.8%
Helping me to get more attention at work in future	75.2%	3.8%	44.4%	13.6%	32.5%	19.4%	52.9%	7.1%
Enabling me to make more money in future work	61.8%	6.8%	38.4%	16.7%	30.6%	19.8%	49.2%	8.6%

4.1.6 What the subjects want to learn

Most of the respondents want to learn terms and expressions about daily life, traffic and traveling, commodities and trading, hotel and hospitality, technology, state policies and tourism in Mandarin Chinese, local Chinese dialects, ethnic minority languages, and English. Their attitudes ranged from the most positive to the most negative are in the order of Mandarin Chinese, local Chinese dialects, foreign languages, and ethnic minority languages, or Mandarin Chinese, English, local Chinese dialects and ethnic minority language.

4.2 Income levels and causes of poverty of the documented poor households

4.2.1 Income level

The average monthly household income level of the documented poor households is divided into 6 levels, of which the most are 500–1,000 RMB yuan per month, accounting for two-fifths, and the least is 7,000 RMB yuan and above, accounting for only 0.4%.

4.2.2 Causes of poverty

The causes of poverty among the documented poor households were complicated and divided into 10 causes, ranging from illness (21.0%), lack of skills (18.4%), kids going to school (17.3%), and need for capital (14.7%), and the least were due to water shortage and natural disasters, rating only 2.1% and 0.4%.

4.3 Relationship between multilingual ability and monthly household income

4.3.1 Relationship between Mandarin Chinese ability and monthly household income

The results in this section, measured by the Spearman's rho, are shown in Table 4, which shows that Mandarin Chinese ability had a significant positive correlation to the monthly household income of the documented poor households (r = 0.123, p = 0.000 < 0.01), but the correlation was very weak. This implies that Mandarin Chinese ability had a positive but weak correlation with the monthly household income of the subjects to some extent, and the higher the Mandarin Chinese ability is, the higher the monthly household income will be.

Table 4: Spearman's rho result of the relationship between Mandarin Chinese ability and monthly household income.

			Self-evaluated Mandarin Chinese ability	Monthly household income
Spearman's rho	Self-evaluated Mandarin ability	Correlation coefficient	1.000	0.123[a]
		Sig. (2-tailed)		0.000
		N	2,651	2,614
	Monthly household income	Correlation coefficient	0.123[a]	1.000
		Sig. (2-tailed)	0.000	
		N	2,614	2,644

[a]Correlation is significant at the 0.01 level (2-tailed).

4.3.2 Relationship between local Chinese dialect ability and monthly household income

Table 5 shows the relationship between local Chinese dialect proficiency and monthly household income using the Spearman's rho. As illustrated in Table 5,

the participants' local Chinese dialect ability was significantly and positively correlated with monthly household income (r = 0.100, p = 0.000 < 0.01), but the correlation strength was very weak. This indicates that the participants' local Chinese dialect ability had a positive relationship with their monthly household income, and that the higher the local Chinese dialect ability is, the higher the household income will be.

Table 5: Spearman's rho for the relationship between self-evaluated local Chinese dialect ability and monthly household income.

			Self-evaluated local Chinese dialect ability	Monthly household income
Spearman's rho	Self-evaluated local Chinese dialect ability	Correlation coefficient	1.000	0.100[a]
		Sig. (2-tailed)		0.000
		N	2,671	2,634
	Monthly household income	Correlation coefficient	0.100[a]	1.000
		Sig. (2-tailed)	0.000	
		N	2,634	2,644

[a]Correlation is significant at the 0.01 level (2-tailed).

4.3.3 Relationship between ethnic minority language proficiency and monthly household income

The result of Spearman's rho relationship between minority language ability and monthly household income indicates that there was no significant correlation between the participants' ethnic minority language proficiency and their monthly household income (p = 0.507 > 0.001).

4.3.4 Relationship between English language ability and monthly household income

The Spearman's rho for the relationship between English ability and monthly household income of the participants shows that no significant correlation was found between the participants' English ability and their monthly household income (p = 0.443 > 0.01).

4.3.5 Important predictors of multilingual ability affecting monthly household income

As Table 6 shows, a Linear Stepwise Regression analysis was adopted to spot the important predictors of multilingual ability affecting the monthly household income of the participants. Overall self-evaluated multilingual ability was used as the independent variable with the monthly household income as the dependent variable. The Multivariate Statistical Analysis of the relationship between multilingual ability and monthly household income and their influencing factor variables reveals that the only variable that entered the Model Summary was the overall self-evaluated local Chinese dialect ability, adjusted with ted R-squared of 0.002. This result implies that local Chinese dialect ability controlled 0.20% of the variance in monthly household income and was an important predictor of the subjects' monthly household income.

Table 6: Linear stepwise regression analysis of the important predictors.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.054	0.003	0.002	1.034

[a]Predictors: self-evaluated local Chinese dialect.

5 Discussion

This study has the following three major findings. Firstly, the participants' Mandarin Chinese ability and local Chinese dialect ability significantly and positively correlated with monthly household income, but the correlation strength was very weak. Secondly, ethnic minority language ability and English ability did not significantly correlate to monthly household income. The participants' overall multilingual ability significantly and positively correlated with causes of poverty, which indicate that multilingual ability had an impact on the causes of poverty to some extent. Thirdly, the participants' local Chinese dialect ability was a significant predictor of their monthly household income.

These findings are largely consistent with those of previous studies in the following three aspects. First, the local Chinese dialect ability was significantly and positively related to the monthly household income. Because of the lack of awareness of education, some ethnic minority groups in poor areas of Southwest China have disadvantaged educational backgrounds, and some of them are unwilling to speak or unable to speak Mandarin Chinese. In mixed living areas, they use the local Chinese

dialect to communicate externally besides speaking their own ethnic mother tongue at home or in the village. This finding is consistent with that of Yingji and Zhang (2016) who stated that the higher the local Chinese language level is, the higher the income will be. 59.1% of the 13 ethnic minority populations had their ethnic mother tongue as their first language, 40.9% of the others had the local Chinese dialect as their first language, and the majority of the 59.1% ethnic mother tongue speakers had local Chinese dialect as their second language as well. Therefore, local Chinese dialect was the language of wider communication and it had a larger population of speakers. As a result, local Chinese dialect ability had become an important predictor of monthly household income of the participants. This result suggests that the lack of or weak local Chinese dialect ability may help explain poverty. Second, Mandarin Chinese (the national lingua franca) occupies a dominant position in poverty eradication and rural revitalization and is the most important part of multilingual competence, which is more effective in poverty eradication and rural revitalization for ethnic minorities (Wang 2018). Third, abilities in Mandarin Chinese, local Chinese dialects, ethnic minority languages, and English correlated to the causes of poverty (e.g. Guo 2018; He and Zhang 2017; Li 2019; Wang 2018), suggesting that the absence of multilingualism or weak multilingualism might lead to poverty.

However, the findings of this article's quantitative questionnaire survey differ from those of previous studies in two aspects. Firstly, in terms of ethnic mother tongue ability, Bian et al. (2019) argued that the stronger the ethnic mother tongue ability, the higher the individual income. In contrast, in this article, we found that there was no significant relationship between the self-evaluation of ethnic mother tongue ability and monthly household income. This contrast may be mainly due to the following two reasons: first, the level of the ethnic mother tongue ability was not high. Usually, poor ethnic minorities live in mountainous areas and border regions, and their ethnic mother tongue is their first language, but the proportion of proficient language ability was 32.7%, and the number of people in the average and the poor language levels was even higher. Second, the ethnic mother tongue is not widely used, and the two most used occasions for ethnic mother tongue use were communication with family members, accounting for 48.4% and communication with the same ethnic group, rating 51.3%, while the local Chinese dialect and Mandarin Chinese were mostly used in situations such as going to government departments, shopping at the market, going on business trips or working as migrant workers in cities. However, the interview data of this study suggest that, in fact, the stronger the ethnic mother tongue ability of some ethnic groups, the higher the monthly household income. There are 16 cross-border ethnic groups in Yunnan Province, and they are Dai, Zhuang, Miao, Jingpo, Yao, Hani, De'ang, Wa, Lahu, Yi, Achang, Lisu, Buyi, Nu, Bulang, and Dulong. A large number of cross-border ethnic

groups in Yunnan have had some close ethnic kinship with the people of neighboring countries, which is a basis for developing friendly relations between China and its neighbors. The mother tongues of these ethnic groups play a special advantage in border trade, and these ethnic groups have higher incomes than those who do not speak the cross-border ethnic mother tongues. Secondly, as for English ability, Li (2019), Wang (2018), Guo (2018), and Zhang (2008), argued that the stronger the foreign language ability, the higher the annual income of the individual, and that improving foreign language ability helps to get out of poverty. However, the finding of this article indicates no significant correlation between self-evaluated English ability and monthly household income.

The years of education per capita of ethnic minorities in the southwest border areas are lower than the average of the region, mainly because education is seriously lagging behind, resulting in poor performance in secondary and high school exams, and English ability is often weak or absent for poor ethnic minority groups and poor families. There are two reasons for this, firstly, the participants feel that the better their English scores are, the more able they are to continue to go to school, but then their families lack labor, and so, going to school and lacking labor is one of the main reasons for poverty; secondly, English is the weakest subject in primary and secondary schools, and some students lose the opportunity to continue their schooling and further education because of their poor English scores. This makes it difficult for the participants to obtain effective education, an inability to learn advanced technology, and frustration in going out to work or do business, making their families become poor again or return to poverty. Maybe another reason for this result is that the participants are students from the documented households, and usually their English ability is very weak and they also rated their English ability very low. Therefore, the statistic discriminability is very small and a significant correlation did not emerge between their English ability and monthly household income.

However, when interviewing the households, mostly the parents, the research team found that the majority of respondents believed that the better their children's English scores were, the more opportunities they would have to go to university. Although the family might be poor due to lack of labor, once the child graduates from college and has a regular job, there is a hope to get out of poverty. According to the data from the households interviewed, families with one secondary, college, or bachelor's degree graduate have been lifted out of poverty in recent years. This shows that the poverty brought by English learning is temporarily short and it can also explain the phenomenon that there was no correlation between the participants' foreign language ability and their monthly household income.

6 Conclusion

This article explores the multilingual ability, occasions for language use, and attitudes towards the importance of language of the documented poor households, as well as the correlation between the language ability and monthly household income. It finds that: (1) As for multilingual ability, the participants rated their ethnic minority language ability first, local Chinese dialect second, Mandarin Chinese third, and English last. (2) In regard to the occasions for language use, they spoke their ethnic minority language at home and in the village, local Chinese dialect at the town or county seat, and Mandarin Chinese outside of the county seat or work out of the province. (3) In terms of attitudes towards the importance of language, they regarded Mandarin Chinese as first, local Chinese second, English third, and their ethnic minority language last. (4) As for the relationship between the language ability and monthly household income, Mandarin Chinese ability and local Chinese dialect ability correlated with the income of the documented households, and ethnic minority language and English ability correlated with household income to some degree.

Through the above analysis, this article concludes that multilingual ability can play a role in the documented poor households' incomes and employment under certain conditions. By emphasizing the role of language in rural revitalization, bringing the utility of each language into play, and reasonably developing ethnic minority language resources, this article seeks to provide a practical basis for exploring language-facilitated poverty alleviation and language-facilitated rural revitalization in China. First of all, multilingual education should be promoted based on education in the national common language (Mandarin Chinese). From the results of the survey, the situation of mastering Mandarin Chinese is not optimistic, and the proportions of average and poor ratings of Mandarin Chinese were 46.2% and 8.1% respectively, which is still a very large proportion, and the task of popularizing and improving common language education is very difficult. Secondly, the use of ethnic mother tongue is declining and the range was relatively narrow in the survey, but mother tongues are associated with the presence of spiritual and emotional influences on the level of poverty. They have a calming effect on the mind and play an important role in the cognitive world of ethnic minorities. Thirdly, local Chinese dialects have different economic values in different regions. The positive effect of dialects on the income of ethnic minorities in the survey suggests that local Chinese dialect ability is a medium for gaining a sense of psychological equality and is very important for active integration into municipal life. Lastly, as far as foreign languages are concerned, English, Vietnamese, Thai, and Burmese are important regional international communication tools and cultural vehicles, and they are

important economic resources in Southwest China. Since foreign languages are key gateways to enter universities for ethnic minority students of the documented poor households, they lead to higher levels of wage and business income after graduation. Strengthening positive attitudes and ability to use foreign languages is essential for integration with the world in the long run.

Although this study only represents the cases of 34 border region counties in Southwest China, multilingualism and multilingual education are special propositions in China, and the impact of multilingual ability especially on the poverty of ethnic minority populations is worthy of deep consideration. It is urgent to study the relationship between multilingual ability and poverty in more areas so as to fully implement the task of promoting universal education to help the rural revitalization in the post-poverty eradication era. Poverty is one of the most serious problems of the twenty-first century, and the eradication of poverty is still the mission of all humanity. The accomplishment of targeted poverty reduction in China does not mean that poverty has been completely eradicated; poverty in the post-poverty alleviation period or in the rural revitalization still deserves attention, and language-assisted poverty eradication in the Chinese context has a long way to go.

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