

Are Chinese Students Studying in North America More Willing to Make Friends with Chinese People due to Language Problems?

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Abstract: This work delves into the social interactions of Chinese international students in North America, focusing on the interplay between language proficiency, ingroup bias, and their implications for forging friendships within ethnic communities. The study integrated quantitative and qualitative methodologies, analyzing English proficiency, Big Five Inventory scores, and stress indicators during self-introduction tasks. Initial findings suggest a strong correlation between English proficiency, ingroup bias, and stress levels in self-introduction settings, especially in predominantly non-Chinese audiences. In this work, the potential influence of digital communication platforms like Zoom and inherent biases in self-reported data are also acknowledged as limitations. The research underscores the necessity for higher educational institutions to promote language development and intercultural competence, fostering an inclusive social environment for international students. Through this paper, the author aim to shed light on the complexities of social networking among Chinese international students, offering insights to enhance multicultural understanding and inclusion in academic settings.

Keywords: Chinese international students, ingroup bias, English proficiency, social networking, multicultural inclusion

1. Introduction

The globalized educational environment in recent years has witnessed an increasing trend of Chinese international students undertaking higher education in North America. According to the Institute of International Education's (IIE) 2020 Open Doors Report, Chinese students remain the largest international student population in the U.S., accounting for approximately one-third of all international students (Institute of International Education, 2020) [1]. Over the past decade, the number of Chinese students studying in the United States has more than tripled. Despite the enriching multicultural experience these students seek, empirical studies reveal a noticeable trend of Chinese students gravitating toward socializing primarily with their Chinese peers [2]. Additionally, cultural barriers and English language proficiency have been identified as significant challenges Chinese students face in establishing connections with their local peers [3,4]. This phenomenon makes me wonder whether Chinese students' preference for making friends with Chinese people is related to the language problem.

Language proficiency has been recognized as a critical component in intergroup relations and can significantly shape social networks, particularly among international students [5]. Difficulties often arise when non-native speakers encounter informal language use, including colloquial English, idiomatic expressions, and accents, prevalent in casual social interactions. Most existing research on this subject focuses primarily on the general experiences of international students. However, there's a gap in the literature when it comes to the distinct experiences of Chinese students studying in North America. For example, the cultural expectations in academic and social settings in North America could be significantly different from those in China. Chinese students might be accustomed to an education system that emphasizes memorization and teacher-led instruction, contrasting the more discussion-driven, critical thinking-based model commonly seen in North American institutions.

Additionally, cultural norms and societal expectations could create an extra layer of complexity for these students. For instance, the typical Western norms of individualism and assertiveness may contrast with the more collectivist and harmony-focused values prevalent in Chinese society. Consequently, these students may face difficulties in adjusting to these cultural differences, affecting their interaction with peers and participation in social activities. Despite having an adequate command of English to fulfill academic obligations, these students may still face difficulties when navigating the nuances of colloquial English in informal social situations. This inability to communicate effectively could lead to anxiety, decreased self-confidence, and consequently, a preference for interacting within their Chinese-speaking peer group.

Furthermore, this preference for homophilic interactions among Chinese students can be reinforced by the comfort and familiarity of shared cultural norms, easier communication, and a perceived sense of belonging to an 'in-group' [2]. The notion of 'in-group' bias, a theory derived from the Social Identity Theory [6], posits that individuals favor their own group members. This bias enhances their self-esteem and identity, suggesting that Chinese students might prefer socializing with their fellow countrymen due to the shared language, culture, and identity, thus influencing the formation of their social networks while studying in North America.

This proposal seeks to explore the question: Do difficulties with oral and listening skills in English, along with struggles in the use of informal language, influence Chinese students' preference for socializing with their Chinese peers in North America? The findings may shed light on the dynamics of social networking among Chinese international students and offer suggestions for facilitating their cross-cultural adaptation. The researcher hypothesis is that Chinese students with weaker oral and listening skills in English, and those who struggle with informal language use, are more likely to gravitate towards Chinese peers due to these linguistic difficulties.

2. Measure

The core measures of this study will involve both quantitative and qualitative elements to provide a comprehensive analysis of the researcher research question.

Quantitative Measures

English Proficiency Test: To assess participants' English proficiency, the author will use their TOEFL or IELTS scores, as these are commonly accepted measures of English language proficiency in academic settings. **Self-introduction Performance:** Participants will be asked to deliver a self-introduction in front of the phantom audience. This performance will be evaluated by an independent panel of trained coders using a rubric that accounts for factors such as fluency, coherence, and use of appropriate self-disclosure [7]. The coders will be blind to the audience composition to prevent bias.

Anxiety and Stress Assessment: Participants' stress and anxiety levels during the self-introduction will be measured through both physiological and self-report measures. Physiological measures will include heart rate variability (HRV) and galvanic skin response (GSR), as these have been shown to be reliable indicators of stress and anxiety [8]. For the self-report measure, participants will be asked

to rate their perceived stress and anxiety levels on a Likert scale immediately following the self-introduction.

Qualitative Measures

Semi-structured Interviews: After the completion of the self-introduction, participants will be invited to participate in a semi-structured interview to gain further insight into their experiences. The interview will ask questions about their feelings during the self-introduction, their perceptions of the phantom audience, and their personal experiences of forming social networks in North America. The semi-structured format will allow participants to express thoughts and experiences beyond the confines of predefined categories, capturing nuanced and personal aspects of their experiences. **Coding of Interviews:** Interviews will be transcribed verbatim and analyzed using thematic analysis, following Braun and Clarke's [9] six-step process. This method allows for the identification of patterns within the data and enables the interpretation of various aspects of the research topic. The inter-rater reliability for all coding will be calculated to ensure the reliability and validity of the researcher findings. Any disagreements between coders will be discussed and resolved via consensus.

Additionally, the author will measure participants' personality traits using the Big Five Inventory (BFI) [10]. This measure will help us assess any potential impact of participants' individual personality differences on their response to the experiment. The BFI is a self-report inventory designed to measure the Big Five dimensions of personality, namely openness, conscientiousness, extraversion, agreeableness, and neuroticism. This inclusion allows us to examine if certain personality traits, such as extraversion or neuroticism, interact with language proficiency in affecting participants' stress levels and performance during self-introduction.

In terms of reliability, the consistency of the researcher measures will be assessed using Cronbach's alpha for the scales (e.g., Big Five Inventory, self-rated stress) and inter-rater reliability for the coders' evaluations of stress and performance. Any discrepancies in coding will be resolved through discussion until a consensus is reached, ensuring the reliability and validity of the researcher data. The researcher research design also provides opportunities for future longitudinal studies, where the potential long-term effects of ingroup bias on friendship patterns could be investigated. This future research can build upon the researcher findings and extend the researcher understanding of the factors that influence friendship formation among Chinese international students.

In analyzing the results, the author will employ multiple regression analyses to examine the relationships between various variables. The author will use Ordinary Least Squares (OLS) regression, a common method for estimating the unknown parameters in a linear regression model. OLS is beneficial in the researcher context as it can handle multiple predictor variables and does not require the variables to be normally distributed.

The variables under consideration will include English language proficiency, personality traits, the frequency of past interactions with non-Chinese people, and the perceived stress levels during the Zoom meetings. Specifically, the author will investigate whether English language proficiency (measured by TOEFL/IELTS scores) and personality traits (quantified by the BFI test scores) can predict participants' stress levels (as decoded by the researcher trained coders from audio and video recordings) and performance during self-introduction (measured by their coherence, fluency, and articulation, scored by a separate panel of evaluators).

The regression model will take the following form: $\text{Stress_Level/Performance} = \alpha + \beta_1 * (\text{English_Proficiency}) + \beta_2 * (\text{Personality_Traits}) + \beta_3 * (\text{Past_Interactions}) + \epsilon$. In this model, α represents the intercept (baseline stress level or performance when all predictors are zero), β_1 , β_2 , and β_3 represent the change in the stress level or performance for a one-unit change in English proficiency, personality traits, and past interactions, respectively, and ϵ represents the error term.

Through this regression analysis, the author aim to discern the relationships among the variables, determine the degree to which each factor influences the outcomes, and understand the complexities

inherent in the social interactions and behaviors of Chinese students studying abroad. This approach will allow us to tease apart the effects of the different variables and make accurate predictions about the underlying dynamics of the experiences faced by Chinese students in North America. Lastly, the author will consider the socio-cultural context of the participants, acknowledging the influence of past experiences and cultural norms on their reactions. Accordingly, the author will include questions in the researcher semi-structured interview to capture this context and its influence on participants' reactions to the phantom audience.

This study employs both qualitative and quantitative approaches to understand the influences on Chinese international students' social interactions in North America. A thematic content analysis of the Zoom meeting recordings and participant self-introductions will be conducted for the qualitative data. Trained researchers will identify themes related to the students' experiences, supplementing this with observations of non-verbal cues indicating stress or discomfort. The qualitative findings will be triangulated with the quantitative data from multiple regression analyses, TOEFL/IELTS scores, and BFI personality test results. This combination will provide a nuanced understanding of how factors such as English proficiency affect these students' social networks.

The ultimate goal is to contribute to the knowledge on Chinese international students' experiences in North America, aiding in developing practices and policies to enhance their social integration and academic success. Results Analysis:

3. Results Analysis

The author anticipate the researcher results will reveal a significant relationship between English proficiency, ingroup bias, and stress levels during self-introduction tasks. The author predict that students with lower English proficiency and stronger ingroup bias would demonstrate higher levels of stress in settings with a predominantly non-Chinese audience. The author hypothesize that students with higher English proficiency and low ingroup bias would show lower stress levels, regardless of the audience composition. These results are expected to remain significant even after controlling for personality traits. Results of the researcher study will be analyzed using a combination of statistical methods and interpretative analysis, ensuring a comprehensive understanding of the researcher data.

Firstly, descriptive statistics will be used to summarize the participant demographics, English proficiency scores, Big Five Inventory scores, and initial measures of stress and performance. These statistics will provide an overview of the researcher participant sample and the variables involved. Next, inferential statistics will be applied to assess the effects of the researcher manipulated independent variables (e.g., phantom audience composition and order of presentation) on the dependent variables (stress level and self-introduction performance). This will involve running an Analysis of Covariance (ANCOVA) to compare the mean stress and performance scores across the different conditions while controlling for covariates like English proficiency and personality traits.

Subsequent to this, the author will conduct multiple regression analyses to explore the relationships between the researcher dependent variables and potential predictor variables. This includes the English proficiency scores, Big Five Inventory scores, and socio-cultural factors collected from the semi-structured interviews. The goal is to ascertain if these factors predict the stress levels and performance of participants during self-introductions, in turn affecting their potential for establishing friendships with non-Chinese peers.

The researcher data will be inspected for any violations of assumptions underlying the statistical tests, such as homogeneity of variance and normality. If any violations are found, appropriate steps will be taken to transform the data or use non-parametric alternatives. Furthermore, the author will analyze the semi-structured interview responses to gain insights into the participants' subjective experiences and their perceptions of the phantom audience. This qualitative analysis will involve thematic coding based on the grounded theory approach [11], allowing themes to emerge naturally

from the data. By incorporating this qualitative dimension, the author can better understand the nuanced experiences of the researcher participants, complementing the quantitative results and providing a richer interpretation of the researcher findings.

Finally, the results from the statistical tests and qualitative analyses will be triangulated to provide a comprehensive understanding of the factors influencing Chinese international students' preference for Chinese friends. By integrating both quantitative and qualitative findings, the author will ensure a holistic analysis of the researcher data, recognizing the complex and multi-faceted nature of social interactions among international students. The combination of statistical analysis and qualitative interpretation will allow for a robust and thorough understanding of the influences shaping the social networks of Chinese international students in North America. Through this research, the author aims to contribute valuable insights into their experiences, potentially informing interventions to enhance their social integration and academic success.

As part of the researcher Results Analysis, the author also plans to perform moderation analysis to explore whether English proficiency or personality traits (as per the Big Five Inventory) moderate the relationship between the audience composition and the stress level and performance of participants. These analyses will be conducted using the PROCESS Macro for SPSS [12], which is specifically designed for probing interaction effects.

Further, the researcher study will consider the potential effect of order in which participants were exposed to different audience compositions. The author predicts that stress levels may vary depending on whether participants first experience a predominantly Chinese or non-Chinese audience. To investigate this, the author will incorporate presentation order as a factor in the researcher statistical models. To assist in the interpretation and presentation of the researcher results, the author plans to use visualizations, such as scatter plots and regression line graphs. These visual aids will offer a more intuitive understanding of the relationships between variables. Moreover, for the mediation analysis, the author will adopt the path diagram. Path diagrams will provide a visual depiction of the relationships between variables, demonstrating how one variable may mediate the relationship between two others.

Lastly, the ethical implications of the researcher research will be considered throughout. Participants' consent will be sought before the study, and they will be debriefed after the experiment. Confidentiality will be ensured, with personal data anonymized and securely stored. The author will also consider the potential psychological impact on participants and provide resources for further support if necessary.

The researcher results and analyses will offer a comprehensive and insightful understanding of the interplay between language proficiency, ingroup bias, and social networks among Chinese international students in North America. By utilizing robust quantitative and qualitative methodologies, the author will generate findings that not only extend the existing body of knowledge but also have practical implications for fostering more inclusive environments within educational institutions.

4. Conclusion

In conclusion, the researcher proposed study aims to provide a comprehensive exploration of the factors influencing the social networks of Chinese international students in North America. By investigating whether linguistic proficiency and ingroup bias play a role in their tendency to establish friendships within their ethnic group, the researcher research intends to shed light on this under-researched area, offering fresh perspectives that can guide future research and intervention design. This study is expected to contribute to the body of knowledge concerning the effects of language barriers and ingroup biases on social interactions among international students, specifically those from China. By incorporating a unique experimental design, the researcher research aims to uncover

the interplay between these two factors, highlighting their influence on students' stress levels and their propensity to connect with fellow Chinese students.

In addition to the insightful observations already outlined, there are a few other potential limitations of the researcher research design to be considered.

Firstly, the use of the online platform Zoom may not completely mirror the dynamics of in-person interactions. Although Zoom has become a prevalent tool for communication and has its own dynamics, the subtleties of face-to-face communication such as body language and physical presence could be underrepresented in the researcher study. Thus, the stress levels measured may differ from those that would be experienced in a more traditional social setting. The researcher study relies on a relatively small sample size of 30 participants. This sample may not fully represent the diverse experiences of all Chinese international students in North America. Although the author aim for a diverse sample in terms of academic disciplines and backgrounds, factors such as socioeconomic status, regional variations, and previous experiences living abroad, are not considered in the researcher study.

Moreover, the researcher study examines the experiences of students within a limited timeframe, specifically after the completion of their first semester of study. The dynamics of their social interactions and the extent of their in-group bias could change over time as they become more acclimated to the host culture. Therefore, the findings of this study might be more reflective of the initial stages of cultural adjustment.

Lastly, the use of self-reported measures, such as English proficiency, frequency of introducing oneself to non-Chinese audiences, and BFI personality test results, may introduce bias due to the subjective nature of these assessments. Although this limitation is partially mitigated by the inclusion of objective measures such as stress levels during the experiment, it nonetheless should be taken into account when interpreting the results. Should consider more limitations of the design itself.

Nonetheless, this research signifies an essential step toward understanding the complexities of social networking among Chinese international students. By highlighting the role of language proficiency and ingroup bias, the researcher study underscores the need for universities to develop support mechanisms that foster language development and intercultural competence, thereby facilitating a more inclusive social environment.

Ultimately, the researcher proposed study is designed to not only advance scholarly understanding but also inform practice, guiding institutions in their efforts to support international students and promote multicultural understanding and inclusion. These implications underscore the potential of the researcher research to make a meaningful impact on both the academic field and the lived experiences of international students.

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