【研究論文A:查読審查採択論文】

Emergent Motivation in the English Classroom Setting

Sumiko Miyafusa

Abstract

Putting forward the notion that a source of foreignness may result in adaptive demands for students during the linguaculture learning process, this pilot study explored negative and positive attitudes toward English learning among Japanese undergraduate students. This paper discusses the model of engagement and resistance, which proposes a view of language learning from the perspective of adaptive demands caused by language and cultural patterns that are foreign to the learner. To better understand the negative and positive attitudes students hold toward English learning, this study distributed questionnaires designed to determine the level of interest among participants, including a self-evaluation component for their own English learning. A content analysis was subsequently conducted to code the obtained responses. The main findings were that participants not only resisted the linguaculture learning process, but also exhibit mixed states (i.e., a psychological condition in which the learner simultaneously engages in and resists the linguaculture learning process). These findings and the elaborated theory should help educators better understand how learners encounter resistance and motivation within the language learning process. In turn, this should aid in the development of teaching strategies aimed at motivating students who are learning foreign languages.

Keywords: Engagement, Mixed States, Resistance, English Classroom, Language learning, Motivation

I. Introduction

Nurturing global human resources is a primary concern not only in the context of higher education, but also throughout Japanese society. In this regard, English is both a highly popular international language and one that is necessary for individuals who wish to work and interact globally. However, many people in Japan believe that they are not proficient English speakers, although English lessons are mandatory for students from junior high school to university. In previous research, around 70% of 6,294 investigated students (first year of junior high to the third year of high school) said they were not proficient in English (Benesse, 2014), with specific reasons including the lack of interest and dislike of the learning process. These types of negative thoughts often result in poor grades (Ressor, 2003). Specifically, such negative reactions toward language

learning are referred to as resistance, which is a response that is aimed at avoiding the foreignness of a target language and/or culture (Shaules, 2017).

The term linguaculture refers to the idea of culture as seen through language learning (Risager, 2015). Indeed, previous research has suggested that culture and language are deeply related, and that language can help integrate one's experiences in the world, including areas of life, knowledge, conversation, and learning culture (Liddicoat, 2002). In other words, linguaculture is the main factor of language learning (Ota, 2007). As the concept itself is related to cultural values and feelings, students who are beginning a new language must work to understand intercultural backgrounds, feelings, and the distance between themselves and others while also memorizing relevant vocabulary and grammar (Agar, 1994).

This paper reports on a research project that explored contradictions in the motivational states experienced by undergraduate students. The research described herein is also from a pilot study that examined student mindsets, including elements of resistance, motivation, and mixed states when learning English. In sum, this paper discusses the gap between societal desires and learner mindsets.

II. Literature Review

1. Demotivation

Negative feelings about language learning are often described using negative psychological terminology, including language anxiety or demotivation, thus assuming learner disfunction. Dörnyei (2010) defined demotivation as "specific external forces that reduce or diminish the motivational basis of a behavioral intention or an ongoing action" (p.143); according to his research, the factors of learning demotivation are as follows: 1) teacher characteristics and ability to teach; 2) inadequate school facilities, overly large class sizes, and insufficient levels; 3) past failure experiences that lead to low self-efficacy; 4) inactive attitudes toward language learning; 5) mandatory language learning; 6) disturbing other languages that learners study; 7) inactive attitudes toward the communities in which foreign languages are spoken; 8) peer attitudes; 9) the textbooks used in class.

Informed by an educational perspective, however, this paper argues that such negative feelings are natural responses to adaptive challenges that are inherent to language learning (Shaules, 2017). For example, this includes external factors, such as heavy focusing on vocabulary and grammar learning (Kikuchi, 2013). Meanwhile, negative attitudes toward internationalization interrupt the learning of a new language (Burgress, 2013). The literature also shows that some learners are not interested in learning English because they do not use it or do not think they will visit any relevant foreign countries (Benesse, 2014). However, these same individuals may work with foreign colleagues who speak languages other than Japanese while in Japan. Although

internationalization has occurred in Japanese society, residents who are native to Japan often show indifference to this.

Further, failures may occur throughout the process of learning a foreign language (Benesse, 2014; Dörnyei, 2010). For example, junior high school students may develop frustration when teachers instruct them to repeatedly write words such as apples, oranges, and eat in their notebooks, then submit the results on time. Throughout junior high and high school, students often receive low scores on term exams in which they must memorize textbook items. Even if they are able to memorize English sentences and receive good grades, students may still feel resistance to this practice because they consider the material to be uninteresting. Students may also be required to present page-long readings in front of their teachers; if they do not present well, then they must repeatedly read the passage aloud after school (Kikuchi, 2015). These experiences lose sight of the learning objective, especially when attempting to instill interest in a new language. In sum, such experiences and feelings may demotivate students from learning.

On the contrary, understanding notion of motivation is critical to understand this study. Dörnyei (2009) proposed the existence of both the "ideal L2 self" and "ought to L2 self," the former of which is a motivation factor in learning. However, the "ought to L2 self" may uniquely provide strong learning motivation for Japanese students. The strong image of fluently speaking a target language in the future may motivate these students to learn, even if they have not made substantial progress toward the ideal. Meanwhile, anxiety in speaking a second language is defined as worry and fear over unsatisfactorily using a target language (Zhang & Zong, 2012). In this situation, learners experience very high levels of worry. Under such unnecessary anxiety, they may be demotivated from learning a foreign language.

2. The Developmental Model of Linguaculture Learning (DMLL)

Previous scholars have described intercultural adjustment perspectives to explore this type of research. For example, Bennet (1998) drew on the developmental model of intercultural sensitivity (DMIS), which links six stages, including denial, defense, minimization, acceptance adaptation, and integration, with each divided into ethnocentric stages and ethnorelative stages. Additionally, understating a complex of learning language process is critical for this study. Language learning always relates to cultural awareness as well as language skills. Shaules (2019) investigated the Developmental Model of Linguaculture Learning (DMLL), which describes the learning of language and culture as a psychological adjustment to the demands of foreign patterns. The DMLL is illustrated in Figure 1. As shown, it "posits four levels of learning-encountering, experimenting, integrating, and bridging-which apply both to the development of linguistic abilities and intercultural insight. Language and culture learning are both described as complex skills that lead to

increased intuitive understanding and mastery, and the development of a foreign language and intercultural self' (Shaules, 2019, p.13).

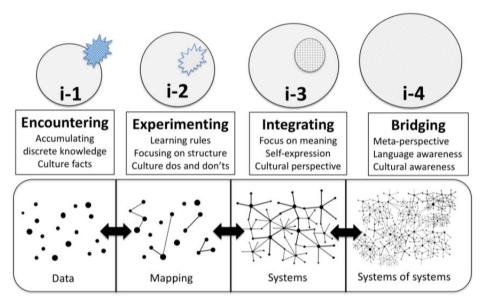


Figure 1. The Developmental Model of Linguaculture Learning (DMLL) (Shaules, 2019)

Figure 1 describes the DMLL's four stages. In the first stage (i-1), learners encounter the need to amass various types of knowledge and cultural facts, which are represented by many dots (elements) in the data (Figure 1). In the second stage (i-2), they experience learning rules, use structures, connect words, and practice cultural manners; here, dots (elements) are connected by lines to show relevance. In the third stage (i-3), learners can integrate knowledge and meaning while expressing themselves in the target language. These factors connect to one another, as in a system. In the fourth stage (i-4), learners are aware of their meta perspectives, language abilities, and cultural backgrounds, and can utilize these efficiently; this is known as "bridging" (Shaules, 2019). Understanding these four stages is important for this study as learners face these stages both in number order and back and force. This DMLL will help this finding of this study analyze more insightful ways.

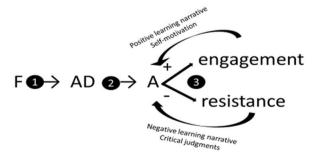
3. Engagement and Resistance

Shaules (2019) discussed feelings of negativity about language learning as part of a natural process. He explained that such feelings signaled resistance, as expressed through the model of engagement and resistance. This process can be understood in terms of feelings of engagement, resistance, and avoiding motivation. In this study, engagement is defined as positive learning

attitudes and self-motivation, and used this term to describe students' positive learning attitudes.

This study focused on negative and positive attitudes toward language learning, as both elements (especially negative feelings) are natural in the learning process. The concept of resistance applies to negative judgments about cultural differences (Shaules, 2017). Relevant factors of resistance include culture shock, different classroom systems, and teacher attitudes. The notion of foreignness is also an intercultural adjustment perspective in language learning and resistance. More importantly, understanding foreignness is necessary for this study as learners often feel uncomfortable during language learning. This idea will analyze factors findings, which participants hesitate to learn in a classroom. Here, foreignness is defined as a gap between the habits and past experiences of learners. It is often obvious in cases where individuals cannot understand signs and words while traveling in a foreign country (Shaules, 2017). Foreignness also occurs implicitly at the level of sensation. For example, someone visiting a foreign country may be uncomfortable purchasing an item from a shop in which they perceive the staff to be pushy.

Figure 2 illustrates the motivational dynamics of the model of engagement and resistance. Here, motivation (engagement) is the result of a dynamic process in which one responds to the demand for learning. The figure shows the flow of the engagement and resistance models. First, foreignness (F) impose adaptive demands (AD) on learners, who then respond to these with more or less acceptance (A). Foreignness (F) include international teachers, environment and classmates. Adaptive demands (AD), for example, is that Japanese learners have discussions to share their ideas in English. Whether they hesitate or not, leaners have to accept (A) teacher's guidance and join this discussion practice. As a result, engagement and/or resistance emerges, thus contributing to a positive learning narrative that raises self-motivation and negative narratives, which create critical judgment. This model demonstrates that language and culture are intimately connected in the learning context (Shaules, 2019).



- 1) Foreign patterns (F) impose adaptive demands (AD) on learners.
- ② Learners respond to with more (+) or less (-) acceptance (A).
- 3 That generates engagement and/or resistance, contributing to positive/negative learning narratives.

Figure 2. The model of engagement and resistance (Shaules, 2019)

This engagement and resistance model can be applied in practical classroom settings. Shaules (2017) argued that resistance was normal through the learning process, although still not ideal. In this regard, negative learning experiences may cause learners to think that they are not proficient at the target language or feel that they have failed. However, learners can simultaneously feel both engagement and resistance while actively participating, which Shaules (2019) defines this having both feelings as mixed states. This mixed state is often seen among learners who wish to engage more, but also do not want to practice. As such, this study investigated the psychological mindsets of learners based on the categories of engagement, resistance, and mixed states after collecting written statements from participating undergraduate students.

This study aimed to understand how learners evaluated and considered English learning in the classroom setting, focusing on the notion that sources of foreignness influence adaptive demands among undergraduate students. The following research question (RQ) was thus developed:

How and to what degree do undergraduate students feel resistance and/or engagement in the English classroom setting?

III. Methodology

1. Participants

This small pilot study examined how undergraduate students faced psychological engagement and resistance to foreign language learning by asking them to answer questionnaires related to language learning. Participants included 23 total undergraduate students in their second years of study (14 who were taking a speaking class and nine who were taking reading class). All were working to achieve undergraduate degrees from the Department of English Communication The research was conducted during April of the 2018 spring semester. English levels ranged from beginner to lower intermediate.

The Department of English Communication aims to develop skills and abilities that are essential for working in the international context, especially due to the increasing rate of globalization. As such, the department focuses on language, knowledge, and practice as the three key elements of learning.

2. Data collection procedure

The researcher allocated time to collect data from participants in the formal classroom setting. The researcher explained the data-gathering requirements and obtained consent from each participant, then distributed the questionnaires.

As mentioned, the above data were collected to understand how undergraduate students evaluated themselves both in the context of English learning and in terms of resistance and

engagement They were asked to respond freely to the following items:

- 1. "Do you like to learn English? Why?"
- 2. "Are you proficient with English? Why?"

These questionnaire items are valid for this small pilot study. These questions appropriate enough to answer research question of this study because this study is to understand how and what learners feel resistance and motivation in the English classroom setting. The author developed these items in order to find out learners' psychological thinking and develop an insightful questionnaire profiler for extensive participants near future.

3. Analytical procedure

Responses were then categorized based on their pertinence to the constructs of engagement, resistance, and mixed states. In order to analyze this procedure, the author created five categories; positive, negative, psychological distancing, self-criticism and neutral mixed states. Then, each category analyze by literature review including theories - DMLL and the model of engagement and resistance.

IV. Results

Participant responses were classified as either A) positive, B) negative, C) psychological distancing, D) self-criticism, or E) neutral mixed states (Table 1). C)' s psychological distancing means language learners consider English as distant and unnecessary. D)' s self-criticism indicates that learners blame themselves instead of criticizing other factors, such as textbooks and teachers. E)' s neutral mixed states is that participants hope to receive benefits from learning, but may have feelings of difficulty or anxiety. Each category was based on Shaule's (2019) model of engagement and resistance. Responses with engaging attitudes and thoughts were coded as engagement, while those with negative and inactive attitudes were categorized as resistance, and those that included elements of both engagement and resistance were categorized as mixed state.

Theme Categories Positive A) Engagement B) Negative Resistance C) Psychological distancing comments Resistance D) Self-criticism Resistance, Mixed states Neutral mixed states \mathbf{E}) Mixed states

Table 1. Comment categorizations: Themes A-E

The findings and results are discussed in the following sections. Tables 2, 3, and 4 respectively show the response categorizations based on the answers to questionnaire items 1, and 2. The author directly translated all Japanese responses into English and provided some comments in each table to explain relevant psychological mindsets and other findings.

Item 1. "Do you like to learn English? Why?"

For this question, 78% of participants answered "yes," 4% answered "no," and 18% answered "neither." This result reflected their interest in learning English because they belonged to English-related departments. As Dörnyei (2009) stated, individuals who have positive future images in which they can fluently speak the target language tend to develop learning motivation, even if they have not made substantial progress toward the ideal. This is therefore categorized as engagement. Table 2 provides details on the responses to the follow-up question (i.e., "Why?").

Table 2. Reasons participants liked English

A) Positive: Engagement, 18 comments

- · I enjoy speaking another language besides Japanese.
- · I feel like I will be good at English someday.
- Fun (3 participants)
- Interesting (2 participants)
- I want to be good at English. (3 participants)
- · I will have chances to speak English with foreigners soon.
- I want to work and live overseas. (5 participants)
- · I like to learn about other cultures overseas. (2 participants)

B) Negative: Resistance, 1 comment

• Difficult

C) Psychological distancing comments: Resistance, 1 comment

· I have no chance to speak with foreigners.

D) Self-criticism: Resistance and Mixed states, 2 comments

- I don't think my English is improving.
- · I'm not working hard.

E) Neutral mixed states: Mixed states, 2 comments

- · It is interesting when I understand, but I feel bored when I don't understand.
- · It's fun, but it bothers me.

In A), positive comments suggested images of the future self; that is, the self that participants hoped to become. These images increased the motivation to learn English. In B), compared to the eight positive remarks in A), one comment indicated feelings of resistance. Language learning relates to linguacuture including cultural values, feelings and memorizing vocabulary and grammar

(Agar, 1994). Leaning these factors is not simple task. In C), the intercultural adjustment perspective suggests that resistance toward English is possibly related to psychological distancing toward foreigners in general (Shaules, 2017). This comment indicated the perception that the learner considered English as both distant and unnecessary. In D), these learners appeared to blame themselves rather than criticizing the study materials, teachers, or testing difficulty. In E), these comments indicated contradictory feelings toward learning English, thus referring to the model of Engagement and Resistance and/or forced adaptation in learning. These participants desired benefits from learning, but may have also experienced difficulty or anxiety. In their learning process, learners encounter (i-1) new knowledge, experiment (i-2) foreign environments, integrate (i-3) self-expression, and bridge (i-4) language awareness and cultural background in terms of the DMLL (Shaules, 2019). Fortunately, nearly 80% of participants are willing to learn languages while also learning dynamics of four levels

Item 2. "Are you good at English? Why?"

Many participants reported that English learning was difficult. More specifically, 77% reported little confidence in using English, as indicated by various versions of "no" responses to the above question. Meanwhile, only 9% reported "yes," and 14% said "neither." These data support Benesse (2014), who investigated the issue among junior high and high school students. Although all participants were second-year undergraduate students who had taken English classes for approximately 10 years in the school setting and were enrolled with the Department of English Communication at the time of this study, many did not believe they were proficient with English.

To clarify the various "no" responses, 18 of 23 participants wrote alternative versions, even though the question was binary (yes/no) in nature. This included the following: Not at all (zen zen!), not at all (mattaku), I do not think so (omoi masen), not good at (futokui), not do well (nigate), I am not good at (tokui deha nai), I am not (dewa nai), so-so (fustu), no (iie), well, I do not know (hmm...bimyo), and I do not know (wakaranai). These answers strongly expressed negative psychological feelings. Table 3 provides answer categorizations and reasons that participants may have thought they were proficient or inadequate with English.

Table 3. Reasons participants believed they were proficient or inadequate with English

A) Positive: Engagement, 2 comments

- English is interesting and I want to study more.
- · I can engage in daily conversations.

B) Negative: Resistance, 4 comments

- · I have no motivation to learn.
- Very difficult to listen (3 participants)

C) Psychological distancing comments: Resistance, 1 comment

• No special reasons (5 participants)

D) Self-criticism: Resistance and Mixed states, 8 comments

- · I don't know many vocabulary words and I am not good at pronunciation.
- · I can't speak English.
- · I don't study.
- · I can't memorize.
- · I can't memorize the words.
- · I feel panicked when someone asks me about something in English.
- · I am not good at grammar.
- I'm not good at writing.

E) Neutral mixed states: Mixed states, 4 comments

- · My test score is always average.
- I am not good at writing and speaking, so I want to improve both.
- · I cannot speak, but I can communicate with foreigners a little.
- So-so

In A), only two of 23 participants said they were proficient with English. Their engagement expressions included *interesting*, *want to study*, and *can engage*, thus indicating the motivation to learn English. In B), an intercultural adjustment perspective suggests that resistance is often associated with critical judgments. These comments reflected demotivation in learning and fault. In C), non-specific answers were placed into this category because they indicated refusal and/or distancing, since the questions were simple and direct. In D), there were many self-critical statements, such as *I cannot speak English*, *I cannot memorize*, and *I'm not good at writing*, thus implying that participants felt they lacked skill and had failed from a personal standpoint. In E), similar to those given in response to question 1, these mixed-state comments indicated contradictory feelings toward learning English. Fortunately, these comments also tended to indicate positively mixed states rather than negative mindsets.

Table 4 shows a tabulated list of findings for data 1 and data 2. As mentioned, there were 23 total participants.

5 (22%)

8(35%)

4 (17%)

Participants (N=23)			Data 1	Data 2
	Answers		Do you like English?	Are you proficient with English?
1)	Yes		18 (78%)	2 (9%)
2)	No		1 (4%)	18 (78%)
3)	Neither		4 (18%)	3 (13%)
	Theme	Categories	Participants (%)	Participants (%)
A)	Positive	Engagement	18 (78%)	2 (9%)
B)	Negative	Resistance	1 (4%)	4 (17%)

1 (4%)

2(5%)

2(5%)

Psychological distancing

comments

Self-criticism

Neutral mixed states

C)

D)

E)

Table 4. Summary of quantitative findings (data 1 and data 2)

V. Discussion

Resistance

Resistance.

Mixed states

Mixed states

This pilot study aimed to understand how learners evaluated and considered their English learning in the classroom setting based on the following research question: How and to what degree do undergraduate students feel resistance and/or motivation in the English classroom setting?

Although the sample size was relatively small, there were several interesting findings. First, some of the responses indicated demotivation and associated difficulties when learning English. In the context of this study, demotivation was a stress response that can hinder language and cultural learning. This finding is supported by Dörnyei (2010), who found that demotivation is a factor that diminishes the motivational basis of a behavioral intention or ongoing action as well as an active response.

Second, nearly 80% of participants believed they were not proficient with English. This strongly supports Benesse (2014), who conducted a similar type of study among 6,294 junior high and high school students in Japan. While the current researcher hypothesized that the percentage would be smaller because this study was conducted in one English department, this factor did not seem influential.

Third, the collected data were placed into five categories, including 1) engagement, 2) resistance, and 3) mixed states. This study employed the model of resistance engagement, which

describes the experiences and voices of language learners who struggle with English. As a theory, this model is suitable for use in the practical classroom setting. Shaules (2019) asserted that both engagement and resistance often occur during language learning, emphasizing that this is normal throughout the learning process. In this study, some participants expressed neutral mixed states (Theme E), as follows: it is interesting when I understand, but I feel bored when I do not understand. This statement indicates that a student enjoys learning, but still has a negative reaction in which they do not follow the lecture.

There were also gaps between the results and classroom attitudes. Although about 80% of participants said that they liked to learn English (Item 1), this does not always reflect class engagement. Through teaching these participants, the researcher noticed that there were very few successful experiences in class (e.g., arriving to class late without any excuse or not striving for high scores on quizzes and tests). These experiences also entail some self-criticism (Theme D), as follows: that I cannot memorize and I do not know many vocabularies and I am not good at pronunciation. Kikuchi (2015) also said that a heavy focus on memorizing vocabulary and grammar demotivates English learners. Educators must therefore work to help students feel that they can perform well in class by building their confidence. Gradually, successful experiences will result in motivation, as even small positive experiences in the learning process build confidence and motivate learning in any field. In other words, educators must encourage undergraduate students to engage in the learning process and avoid the application of resistance.

Students are more motivated to learn when educators establish comfortable classroom environments. As Shaules (2019) described in the context of DMLL, the first level of learning is encountering new knowledge and culture, but individual elements have not yet been connected. In this regard, mistakes during lessons are not major problems. Educators must create an atmosphere in which mistakes are acceptable. They should also encourage students to express themselves, which is a valuable way to develop their abilities, while raising questions and sharing honest opinions in class. Finally, they must create adequate materials to maintain learning motivation (Dörnyei, 2010). In this way, students will find the motivation to learn English and continue their learning experiences.

VI. Conclusion

This was a pilot study for a more extensive planned project, so there were clear limitations. For one, the sample size was rather small, with all participants recruited from the same university department. As such, their levels ranged from beginner to lower intermediate. To gather more quantitative data related to patterns of resistance and motivation, the full study should recruit a larger sample across multiple universities in Japan. Two, this study did not address the question of

whether students had high or low levels of resistance. The researcher should therefore develop more elaborate questionnaires that include elements of engagement, resistance, and mixed states.

In addition, a post-test at the end of the semester will be more effective for exploring the motivation to learn English. Follow-up research may therefore include qualitative interviews and class observations to better understand patterns of engagement and resistance. The researcher can therefore identify common resistance profiles and underline patterns of resistance and engagement. In particular, it would be helpful to explore what students have found unpleasant across their lifelong learning experiences. Ultimately, such results should be helpful in the development of pedagogical interventions aimed at reducing resistance. The larger and more extensive version of the study will hopefully support educators in developing teaching strategies aimed at motivating students to learn foreign languages.

Acknowledgements

This work was supported by JSPS KAKENHI (Grant Number K17K02982). I would like to thank Editage for editing this manuscript. I also appreciate the participation of all students who answered the questionnaires.

References

Agar, M. (1994). Language shock: Understanding the culture of conversation. New York: Perennial.

Bennet, M. J. (1998). Basic concepts of intercultural communication: Selected readings. Yarmouth, Maine: Intercultural Press.

Benesse Corporation. (2014). A survey of English learning from junior high to high school students. https://berd.benesse.jp/up_images/research/Teenagers_English_learning_Survey-2014_ALL.pdf

Burgess, C. (2013, May 21). Ambivalent Japan turns on its "insular" youth. The Japan Times.

Dörnyei, Z., & Ushioda, E. (2010). Teaching and researching motivation. London: Routledge.

Dörnyei, Z., & Ushioda, E. (2009). Motivation, language identity and the L2 Self: Second language acquisition. UK: Multilingual Matters Ltd.

Kikuchi, K. (2015). Demotivators in English language learning: Perspectives from Japan. Hituzi Shobo.

Kikuchi, K. (2013). Demotivators in the Japanese EFL context. In Matthew T. Apple, Dexter Da Silva, Terry Fellner (Eds) Language learning motivation in Japan. Multilingual Matters Ltd.

Liddicoat, A. (2002). Static and dynamic views of culture and intercultural language acquisition. Babel, 36(3), 4-11.

Ota, Y. (2007). The problems of the theory and practices of "intercultural language learning": a case study of Japanese language education for children in Australia. Literacies, (3), 65–78.

Ressor, M. (2003). Japanese attitude to English: Towards an explanation of poor performance. NUCB Journal of Language Culture and Communication, 5(2), 57–65.

Risager, K. (2015). Linguaculture: The language – Culture next nexus in transnational perspective. In Farzad Sharifian (Ed.). The Routledge handbook of language and culture. New York: Routledge (pp. 87-99).

Shaules, J. (2017). Linguaculture resistance: An intercultural adjustment perspective on negative learner attitudes in Japan. Juntendo Journal of Global Studies, 2, 66–78.

Shaules, J. (2018). Resistance is normal: An intercultural adjustment perspective on language learner

demotivation, The Third International Psychology of Language Learning (PLL3) Conference. June, 8. Shaules, J. (2019). Language, culture and the embodied mind: A developmental model of linguaculture learning. New York: Springer.

Zhang, R., & Zhong, J. (2012). The hindrance of doubt: Causes of language anxiety. International Journal of English Linguistics, 2(3), 27–33.