Effect of Gender on Ambiguity Tolerance of

Iranian English language learners

Saeedeh Karbalaee Kamran

Department of English Language Teaching, Science and Research Branch,

Islamic Azad University, Tehran, Iran

Laleh Junction, Janatabad-e-Jonoobi, Tehran, Iran

Email: s.kamran@srbiau.ac.ir

Abstract

Current study aimed to investigate the pattern of ambiguity tolerance among Iranian English language learners. Further, this study examines whether any statistically significant difference existed between Iranian male and female learners' in their ambiguity tolerance. To this end, to instruments of Second Language Ambiguity Tolerance Scale (SLATS) developed by Ely (1995), and a questionnaire on participants' demographic information were used to collect the data. Results indicated that, the participants' average ambiguity tolerance score were highest in items related to reading skill and the lowest in items pertained to writing skill. On the part of gender effect, no statistically significant difference was revealed between Iranian male and female English language learners in their ambiguity tolerance. Finally, implications were provided for English language teachers and researchers.

Keywords: ambiguity tolerance, gender, language learning, Iranian learners

1. Introduction

Some people have a more flexible reaction to ideas or beliefs that are different from their own views, while some others have a rigorous tendency to reject ideas that are in contradiction with their own system. According to Furnham (1994), tolerance for ambiguity refers to the way an individual (or group) considers and deals with information about ambiguous situations when they encounter a range of unfamiliar, complex or incongruent cues. As language learning environment is abundant with ambiguity, new structures, and unknown lexicon and grammar, tolerance of ambiguity plays a vital role in language learners' achievement. Ely (1989) emphasizes the nature of uncertainty in language learning context by stating that ambiguity in language learning is visualized by uncertainty, which is observed in many occasions when learners are not sure about the exact meaning of a new vocabulary item or an idiom, when they get confused by different uses of a grammatical tense, or when they feel that they have not pronounced a sound accurately. It sounds common as teachers have experienced situations in which learners cannot tolerate the first moments of encountering new structures, vocabulary items, or even cultural aspects of a new language. Such intolerance can negatively influence learners' performance as stress and agitation can block the way to retrieval of knowledge, or application of strategies. White (1999) emphasizes that if ambiguity is not tolerated reasonably, it can involve learners in a stressful situation in which language learning, and employment of appropriate strategies may be negatively affected. Regarding ambiguity tolerance as one of the important variables which can impede or facilitate language learning, investigation into factors affecting that are expected to provide fruitful results.

2. Background

2.1 The Role of Ambiguity Tolerance in Language Learning

According to Brown (2000), ambiguity tolerance refers to "the degree to which you are cognitively willing to tolerate ideas and propositions that run counter to your own belief system or structure of knowledge" (p. 119). To better understand the notion of ambiguity tolerance, and its relation to language learning context, it is beneficial to trace its origin, clarify the role it plays and determine the way through which it can influence learners in a language learning situation. According to Brown

(2000), ambiguity tolerance is regarded as one of those styles that have emerged in second language research as" potentially significant contributors to successful acquisition" (p. 114). Cohen (2003) illustrates the language learning styles as general approaches to language learning which would include:

> being visual, auditory, or hands-on; being more global versus more particular; being more impulsive versus more reflective; and liking to keep all options open (tolerant of ambiguity, not concerned about deadliness) versus being closure- oriented (wanting clarity, organization , and rapid decisions); and being more extroverted versus being more introverted (pp. 279-280)

Ambiguity tolerance depicted in language learning environment, is ability of dealing with new ambiguous situations without being frustrated or without resorting sources of knowledge (Ellis, 1994). In such a way, students who are tolerant of ambiguity are expected to feel comfortable with learning a new language, and also when facing uncertainties and unknown phenomena in its structural and cultural aspects. Ely (1989) suggests that ambiguity in language learning is appeared as uncertainty, which is experienced by language learners whenever they feel they have not pronounced a sound accurately, or understood exploitation of a grammatical point or grasped the exact meaning of a word. Therefore, when ambiguity is not tolerated reasonably, it can involve learners in a stressful situation in which language learning, risk taking, and application of the appropriate strategies may be negatively influenced. White (1999) expects such stress and anxiety result in "a degree of apprehension and frustration which may ... [be] deleterious to progress" (p. 456). Hence, when ambiguity is not tolerated, the learners' career towards the desirable and encouraged way of being a good language learner might be impeded, since Rubin (1975) characterizes the good language learner as the one "who is often not inhibited and who is willing to make mistakes in order to learn and to communicate, and who is willing to live with a certain amount of vagueness" (p. 47). Moreover, tolerance of ambiguity is sensitive to domain by nature. In other words, one may show high tolerance of ambiguity in one domain and low tolerance in another. Results of a study by Durrheim & Foster(1997) suggested that within a single individual, high levels of ambiguity tolerance within one content might associate with low levels in another domain, and might be unrelated to ambiguity tolerance in a third domain, which "questions the utility of personality measure of ambiguity tolerance" (p. 748). Later Herman, Stevens, Bird, Mendenhall, & Oddou (2010) reemphasized the significance of domain in ambiguity tolerance measures, and designed an ambiguity tolerance scale with items which were contextualized to measure ambiguity tolerance in a specific domain and maintained that "items of ambiguity tolerance measures that are overly general in their contextualization may not function equivalently in different setting"(p. 60).

2.2 Past Studies on the Effect of Gender on Ambiguity Tolerance

Gender is considered as one of the chief factors influencing the acquisition of a language. Brown (2001) believes that gender is one of significant pragmatic variables which influence the acquisition of communicative competence in every language. In past half-century, a number of studies were carried out on brain function in two genders (Shaywitz, Shaywitz, Pugh, Constable, Skudlarski, Fulbright, Bronen, Fletcher, Shankweller, Katz, & Gore, 1995; Shield, 1975; Tavris, 1993), gender identity (Aries,1996; Cutler & Scott, 1990; Duran & Carveth, 1990), gender role in discourse (Hawes &Thomas, 1995; Lees, 1997; Weedon, 1987), and gender bias in verbal ability (Halpern, 1986; Hyde, 1990; Hyde & Linn, 1988; Maccoby & Jacklin, 1974). However, few studies investigated gender differences in language learning style of ambiguity tolerance. Among the existing studies, Maubach & Morgan (2001) who investigated the impact of gender on language learning style of 72 A level students of French and German (57 girls, 15 boys), revealed that male students had higher level of ambiguity tolerance comparing to their female counterparts. In contrast, Kissau (2006) in his study on 490 French language learners (254 girls, 236 boys) in Ontario reported no gender difference in tolerance of ambiguity. Finnaly, Erten & Topkaya (2009) in their study on 173 Turkish university students (106 female, 67 males) reported a significant difference between male and female students in their tolerance of ambiguity with females exceeding males.

Considering the vital role of ambiguity tolerance in language learning context and the few number of studies (with paradoxical results) which investigated the gender role in ambiguity tolerance of English

language learners, there was a need for comprehensive studies to shed light on the impact of gender on English language learners' ambiguity tolerance. Therefore, current study aims to investigate the pattern of ambiguity tolerance among Iranian English language learners, and also it tries to examine whether any statistically significant difference existed between male and female English language learners in their level of ambiguity tolerance. Moreover, every item on Second Language Ambiguity Tolerance Scale (SLATS) was analyzed to test whether any statistically significant difference existed between male and female participants in their tolerance of ambiguity reflected in each item of SLATS. To this end two research questions were formulated:

1) What is the pattern of ambiguity tolerance among Iranian English language learners?
2) Is there any statistically significant difference between Iranian male and female English language learners in their ambiguity tolerance?
3) Is there any statistically significant difference between Iranian male and female English language learners in their ambiguity tolerance reflected in each item of SLATS?

3. Methodology

3.1 Participants

Participants of the current study were 114 English language learners of Iran Language Institute. Among them 60 participants (52.6%) were female and 54 were males (47.4%). They were all intermediate level students, and their age ranged from 14 to 50 years.

3.2 Instruments

3.2.1 Second Language Tolerance of Ambiguity Scale (SLATS).

In order to measure participants' level of ambiguity tolerance, SLATS developed by Ely (1995) was used.. Cronbach's alpha internal consistency reliability of SLATS is .84. SLATS is a 4-point Likert scale questionnaire, with Likert scales of strongly agree, agree, disagree and strongly disagree To score the items on SLATS, one mark is given to strongly agree, two marks to agree, tree marks to disagree, and four marks to strongly disagree. The scores could range from 12 to 48, and the higher the mark, the higher was the ambiguity tolerance of the participant. To eliminate any possible misunderstanding of the items, SLATS was translated into mother tongue of the participants (Persian) by the researcher.

3.2.2 Questionnaire of Participant's Demographic Information

This questionnaire was designed by the researcher to collect data on participants' demographic information. It had enquiries on participants' gender, age, degree, discipline, educational status, and their out of school language learning experience in years.

3.3 Procedure

Firstly, SLATS was translated into mother tongue of the participants (Persian) by the researcher, in order to eliminate misunderstanding of the items. The Persian SLATS revealed a Cronbach's alpha internal reliability of .896 when piloted with 34 English language learners (18 girls and 16 boys) of intermediate level in ILI. As the reliability coefficient was high the Persian SLATS was found eligible instrument to collect data on participants' ambiguity tolerance. In the main study, SLATS and a questionnaire on participants' demographic information were distributed among 268 students of intermediate level in ILI. Discarding blank and incomplete ones, 114 answer sheets were remained which were investigated in data analysis phase.

3.4 Data Analysis

Current study owns a descriptive nature and uses survey method. Descriptive statistics were used to present mean, S.D. and normal distribution of participants' score on ambiguity tolerance. Moreover, the calculations on descriptive statistics part were used to provide the answer to research question one. Further, several analyses of independent samples t-test was employed in order to answer to research question two and three. The Statistical Package for the Social Science (SPSS, version 19.0) was used to analyze the data.

4. Results and Discussion

To answer research question one, participants mean scores on every item of SLATS are presented in a descending mode in table 1. According to table 1, average tolerance of ambiguity score among Iranian

English language learners' revealed to have a mean of (M= 2.14, S.D. = .7). As explained above, the scores on each item of SLATS could vary from one to four, with the higher score showing higher tolerance of ambiguity. The average point on this scoring continuum is a figure of 2.5. Considering the participants' average tolerance of ambiguity score (M= 2.14), they enjoy a slightly moderate tolerance of ambiguity, with tendency to lower end of the continuum. Based on SLATS, the participants average tolerance for ambiguity score extended slightly beyond the mid-point of scoring continuum only in two items, item twelve (M= 2.70, S.D. =.88) and item six (M=2.53, S.D. =.92).Both of these items are related to tolerance of ambiguity in reading comprehension, indicating that Iranian English language learners' tolerance of ambiguity score in reading skill, was somewhat beyond the mid-point of scoring continuum, and also exceeded their average tolerance of ambiguity score in other skills. On the bottom of the table 1, we can find three items with lowest means in ambiguity tolerance. They are item eight (M=1.78, S.D. = .67), item two (M=1.84, S.D. = .64), and item three (M= 1.85, S.D. = .69). According to SLATS, two of these items are related to writing skill (item 8, item 3). It is inferred that, Iranian English language learners revealed their lowest average tolerance of ambiguity score in writing skill. All over all, it is revealed that the participants' average tolerance for ambiguity score based on SLATS, showed their highest in items related to reading skill (item 12, and 6) and the lowest in items pertained to writing skill (item 8, and item three). The observed difference between participants' average tolerance for ambiguity score in writing and reading skills is not surprising as Durrheim & Foster (1997) had argued that ambiguity tolerance was content specific. Further, Birckbichler & Omaggio (1978) articulated that learners may reveal tolerance of ambiguity in one skill and intolerance of ambiguity in another. Moreover, the findings of this study are supported by findings of Kazamia (1999) who studied Greek English language learners on their tolerance of ambiguity measured by SLATS. Results of Kazamia's (1999) study indicated that Greek participants' expressed lower tolerance of ambiguity in writing and speaking comparing to reading. In order to answer research question two, which examined whether any statistically significant difference existed between male and female participants' in their tolerance for ambiguity, an independent samples t-test was run. As depicted in table 2, the Leven's Test for Equality of Variances, indicated that the variances between male and females group were equal [F (1,112) = .93, p=.33 (2-tailed). Assuming equal variances, no statistically significant difference were sought between male and female Iranian English language learners in their tolerance for ambiguity [t (112) = .83, p=.40 (2-tailed)]. This is in line with findings of a study by Kissau (2006) but contrasts the results of some other previous research (Erten & Topkaya, 2009; Maubach & Morgan, 2001). To shed light on effect of gender on participants' ambiguity tolerance reflected in each item of SLATS, an independent samples t-test was run for every singular item on SLATS. According to table 3, only in item five (I don't like the feeling that my English pronunciation is not quite correct) a significant difference was sought between male and female participants in their tolerance of ambiguity [t(112)= 2.99, p= .00 (2-tailed), in which female' ambiguity tolerance (M= 2.35, S.D. .91) exceeded males' ambiguity tolerance (M= 1.85, S.D. = .85). It is inferred that male English language learners, were more sensitive about their fine pronunciation comparing to female learners, which is somewhat confusing finding as it is generally expected that females be more mindful than males about their attitudes and influences they have on the others. Males' inferior ambiguity tolerance concerning the pronunciation can be attributed to the contextual factors in educational environment and cultural bases in the society. In other eleven items of SLATS no statistically significant gender effect was observed in participants' tolerance of ambiguity.

5. Conclusion

Current study tried to investigate the pattern of ambiguity tolerance among Iranian English language learners, and also it probed whether any statistically significant difference existed between male and female learners in their level of ambiguity tolerance. To shed light on details of gender effect, this study tested whether any statistically significant difference existed between male and female participants in their tolerance of ambiguity reflected in each item. The results indicated that Iranian English language learners' average ambiguity tolerance score showed its highest in items related to reading skill and the lowest in items pertained to writing skill. It is implied that English language learners seem to have higher tolerance when confronting ambiguous meanings, unknown words, and unfamiliar topics in a text, as reading is a comprehension skill and learners deal with an existing text rather than trying to create a text. It is inferred that decoding a text, and finding a way to access the

purpose of a passage bring fewer ambiguous factors for learners, comparing to writing an essay and encoding it. As writing is a production skill, English language learners encounter larger number of unknown elements of the language they are learning while trying to express their meaning in words, and they experience lower tolerance of ambiguity. This finding has implications for English language teachers to pay closer attention to their students' attitude in writing tasks. It is suggested that English language teacher, to include in-class writing sessions and monitor their students when they are producing an essay. Moreover, teachers can ask their students to provide portfolios and write their feelings, experiences, and problems in writing tasks. By reading and analyzing students' portfolios teachers gain a voluble insight into their students concerns, needs, and learning difficulties. When teachers achieve such insight, they can help their students explore their learning styles, e.g. ambiguity tolerance. This is visualized in Cohen's (2003) statement which considers the teacher as a "language coach" (p.281), who should provide situations for learners to make them aware of their own style preference. Further, it is also vital that teacher tends to be vigilant towards ambiguous situations which deteriorate learning, and can predict or detect them and deal with them reasonably rather than trying to eliminate them. Designing guessing provoking activities, teacher's appropriate reaction to what may seem uncertain and ambiguous to learners, the provision of risk taking environment and encouraging learners to take risks and guess all lead to having a suitable context for learners to explore their learning style, and level of ambiguity tolerance. On the part of gender effect, no difference was sought between male and female English language learners in their tolerance for ambiguity. This finding has useful implications for English language teachers, articulating that they can regard their students homogenous regarding their ambiguity tolerance. Having a homogenous class (in the case of ambiguity tolerance) can decrease teachers concern about gender affect when they are designing tasks or selecting activities for their classes. When gender effect was investigated in each SLATS item, male participants were found to have inferior ambiguity tolerance in the pronunciation of English words. The contextual factors in educational environment and cultural bases in the society are expected to play the key factor here. It is suggested that further studies be conducted on gender effect on ambiguity tolerance of English language learners, exclusively on their attitude to pronunciation of English words, with larger samples, and also by employing other types of instruments, like interview, portfolio, etc.

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Table 1. Descriptive statistics on participants' ambiguity tolerance (N=114)

Item	Description	M.	S.D.
12	One thing I don't like about reading in English has to guess what the meaning is.	2.70	.88
6	I don't enjoy reading something in English that takes a while to figure out completely.	2.53	.92
11	I don't like the fact that sometimes I can't find English words that mean the same as some words in my own Language.	2.34	.92
9	It bothers me when the teacher uses an English word I don't know.	2.33	.88
7	It bothers me that even though I study English grammar some of it is hard to use in speaking and writing.	2.18	.77
4	It is frustrating that sometimes I don't understand completely some English grammar.	2.13	.77
5	I don't like the feeling that my English pronunciation is not quite correct.	2.11	.91
10	When I'm speaking in English, I feel uncomfortable if I can't communicate my idea clearly.	1.97	.70
1	When I'm reading something in English, I feel impatient when I don't totally understand the meaning.	1.87	.69
3	When I write English compositions, I don't like it when I can't express my ideas exactly.	1.85	.80
2	It bothers me that I don't understand everything the teacher says in English.	1.84	.64
8	When I'm writing in English, I don't like the fact that I can't say exactly what I want.	1.78	.67
	Total Ambiguity Tolerance	**2.15**	**.70**

Table 2. Difference between male and female group in their ambiguity tolerance

		Leven's Test for Equality of Variance		t-test for Equality of Means		
		F	Sig.	t	df.	Sig. (2-tailed)
Ambiguity Tolerance	Equal variances assumed	.93	.33	.83	112	.40
	Equal variances not assumed			.84	11.90	.40

Table 3. Difference between male and female group in their ambiguity tolerance reflected in each item of SLATS

Item	Description	Female		Male		t	p-value
		M.	S.D.	M.	S.D.		
1	When I'm reading something in English, I feel impatient when I don't totally understand the meaning.	1.90	.70	1,85	.68	.37	.71
2	It bothers me that I don't understand everything the teacher says in English.	1.83	.66	1.85	.62	-.15	.87
3	When I write English compositions, I don't like it when I can't express my ideas exactly.	1.81	.77	1.90	.85	-.59	.55
4	It is frustrating that sometimes I don't understand completely some English grammar.	2.23	.78	2.01	.73	1.50	.13
5	I don't like the feeling that my English pronunciation is not quite correct.	2.35	.91	1.85	.85	2.99	.00[*]
6	I don't enjoy reading something in English that takes a while to figure out completely.	2.48	.92	2.70	.90	-1.28	.20
7	It bothers me that even though I study English grammar some of it is hard to use in speaking and writing.	2.23	.64	2.24	.93	-.10	.89
8	When I'm writing in English, I don't like the fact that I can't say exactly what I want.	1.85	.65	1.72	.65	1.03	.30
9	It bothers me when the teacher uses an English word I don't know.	2.31	.85	2.35	.93	-.20	.83

10	When I'm speaking in English, I feel uncomfortable if I can't communicate my idea clearly.	2.01	.79	1.92	.60	.68	.49
11	I don't like the fact that sometimes I can't find English words that mean the same as some words in my own Language.	2.41	.90	2.25	.95	.89	.36
12	One thing I don't like about reading in English has to guess what the meaning is.	2.80	.89	2.64	.85	.92	.35

* Significant at $p < .05$