

## **NATURE OR NURTURE? A CRITICAL ANALYSIS OF GENDER DIFFERENCES IN SECOND AND FOREIGN LANGUAGE LEARNING**

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### **Abstract**

One of the most well-known “gendered” aspects of second and foreign language acquisition is probably that language is a “female subject”, which implies females tend to perform better than males in language learning. While research on gender in second and foreign language learning is wide-ranging, the findings of previous studies have been inconclusive and inconsistent. It is generally observed that the effects of gender are not always apparent, but always present. As the gender/sex variable does not often exert influence in isolation, this paper aims to analyze how gender has been explored in the literature in relation to other individual and group differences and how they interact to shape the process of second and foreign language acquisition.

**Keywords:** foreign language; gender; individual and group difference; language acquisition; second language

## **1. Introduction**

In recent decades, gender issues have gained greater attention in L2 studies. It is generally believed that gender affects L2 acquisition. As gender does not often exert influence in isolation, this paper discusses how gender has been explored in the literature in relation to other individual and group differences (IGDs) and how they interact to shape L2 learning. It will start broadly by investigating the effects of gender before more deeply exploring the theoretical and empirical literature that looks at gender in relation to various IGDs, including motivation, willingness to communicate, learning strategies and styles, culture and experience, and anxiety.

## **2. Effects of gender on L2 learning**

Gender has been considered a variable of IGDs on L2 receptive and productive skills. In terms of language learning “ability,” Hirst (1982) stated that there may be sex differences in linguistics ability and functional brain lateralization. Hirst suggested a difference in terms of biology made to a difference in language ability between the two sexes. However, several researchers (e.g., Ekstrand, 1980) looked at a larger range of studies and found that the findings were basically inconclusive and inconsistent. In most of the cases, the differences found in the literature could be explained by other factors such as experience, culture, and language contexts. There is little research showing that boys and girls are born with different language learning abilities (Briggs, 2020).

One common “gendered” aspect of L2 learning is probably that girls tend to perform better than boys in some contexts (Boyle, 1987; Burstall, 1875). Ellis (1994) suggested that women tend to be more open to new linguistic forms in L2. Moreover, girls outperformed boys in GCSE modern foreign language (MFL) examinations in the UK in 2000 at an average of 15.6% (Nuffield, 2000). Surprisingly, boys outperformed girls in MFL at A-Level in the UK (Arnot et al., 1996). Nevertheless, examination results should be treated with caution, and the validity of such results needs to be questioned.

Gender issues seem to be invisible in some accounts and are sometimes neglected in widely cited literature in contrast with other IGDs such as learning styles and motivation (Sunderland, 2000). Among the limited studies looking specifically at the subskills of language competence, the results were inconclusive. Scarcella and Zimmerman (1998) found that men performed significantly better in word recognition, whereas Nyikos (1990) suggested females did better in vocabulary memorization. In terms of listening, mixed results were reported. Markham (1988) and Boyle (1987) showed that males did better, while Feyten (1991) and Bacon (1992) showed no difference in authentic listening tasks, although there were some differences in strategy use. Similarly, inconsistent findings were found in gender differences in speaking. While some researchers (e.g., Guildford, 1967) suggested a female superiority in verbal ability, Buffery and Gray (1972) reported that West African males had superior verbal abilities, and Ogbay (1999) found that girls were more reluctant to speaking in the Eritrean classroom context. In terms of writing, no difference was found in accuracy and readability of written production (Morris, 1998).

While some studies investigating the effects of gender individually, Ehrlich (1997) emphasized that SLA studies on gender should not remove from their particular cultural, situational, and social contexts. The following section discusses how gender interacts with other IGDs and the impact upon L2 learning.

### **3. How gender interacts with other IGDs to shape L2 acquisition**

#### **3.1 Motivation**

Some studies that look at gender go with motivation. While no statistically significant gender differences were reported by Ludwig (1983) and Francis (2000), Muchnick and Wolfe (1992) showed that gender was moderately correlated with attitude and motivation of American learners of Spanish in which females had more positive learning attitudes and were more motivated to interact

with Spanish speakers. Similar findings were reported by Batters (1986) and Powell and Batters (1985) in that girls were more motivated to communicate with people from target language countries and had higher self-image as FL learners. Some FL studies (e.g., Dornyei & Clement, 2001; Firdani et al., 2019; Jones & Jones, 2001; Williams et al., 2002) also revealed that female learners had greater motivation and more favorable attitudes. Focusing on classroom discourse, Chavez (2000) revealed that female learners were more likely to please the teachers with accuracy of contributions and were more self-conscious when using German.

Moreover, as stated by Rose (2020), not only are languages often gendered, but attitudes to different individual languages vary. For instance, French is often seen as a marked language signaling ostentation (Dewaele, 2005) or effeminacy in the UK, particularly by boys (Kissau, 2006; Kissau & Wierzalis, 2008). Focusing on the instrumental and integrative types of motivation, Bacon and Finnemann (1992) showed that females had higher instrumental motivation (e.g., getting a high-paying job). Wikeley and Stables (1999) also reported that “usefulness” was more highly valued by secondary school girls than boys. Similar findings were found in Koul et al.’s (2009) research, which suggested that women were significantly academically and instrumentally motivated and less socio-cultural than men toward EFL learning. Koul et al. (2009) explained the high instrumental orientation of female college students by the gender role socialization theory. Teaching is perceived as a more suitable profession for females in Thai society, so it can be interpreted as a reflection of socially determined values. However, it is worth noting that the distinction between instrumental and integrative motivation in these prior studies seemed to be ambiguous.

### **3.2 Willingness to communicate**

Willingness to communicate impacts classroom interaction such as teacher talk and peer talk (Chan, 2013, 2020). Prior research has generally showed that gender seems to be a more crucial factor in student talk than in teacher talk (Sunderland, 2000). In terms of teacher talk, most studies have reported that the teachers talked much more than students, and female and male teachers tended to treat both sexes in the same way (Yepez, 1994). Sunderland (1996) examined gendered discourse in FL classrooms and reported that there was little or no evidence of differential teacher treatment on most measures of interaction. Good et al. (1973) found that gender differences in interaction patterns were mainly due to the students' behavior but not the teachers' intentions. For example, it was observed that boys were misbehaving more than girls. However, if the cases of behaviour management were taken out from the data, there was no significant difference in the way the teachers interacted with the girls and boys. Although giving males more attention is unintentional, teachers should be aware of the tendency for females to receive less attention, which may deprive their learning opportunities.

L2 research on student-to-teacher talk has largely shown boys talking more than girls. Batters (1986) found that girls produced fewer academic solicits. Similarly, Alcon (1994) revealed that male Spanish EFL secondary students used significantly more solicits than girls. This evidence was supported by Losey (1995) who found Mexican American men talked much more than women. Baxter (1988) suggested that boys' talk might develop their confidence but disruptively influence their academic success. This might explain why some findings showed that males were more confident (Bacon, 1992) but underperformed (Boyle, 1987) in comparison to females in L2 learning.

Concerning pair and group-work, Kasanga (1996) showed that male university EFL students were more articulate in their performance than females. Homles (1994) also reported that men were more likely to challenge and show disagreement during interaction. Similarly, Gass and Varonis (1986) found that

Japanese EFL males tended to dominate in oral talks. In contrast, other studies (e.g., Pica et al., 1992; Provo, 1991) revealed no significant gender differences in peer-interaction. However, Boersma et al. (1981) suggested that there might be different patterns of student talk at different stages of L2 learning. For instance, girls might initiate more interactions at the tertiary level. Chavez (2000) found that female learners formed stronger cooperative rapport with teachers and male students. They enjoyed interaction with the teachers more than their male counterparts. In fact, the pre-assumption of “more is better” needed to be further examined with what is actually accomplished in interaction.

### **3.3 Learning strategies and styles**

In terms of learning strategies and styles, a few gendered tendencies have been generally found alongside the similarities, particularly frequencies of use between females and males (Lee, 2007; Nyikos, 1990; Tran; 1988; Young & Oxford, 1997). As mentioned above, boys tended to dominate the classroom interaction, and thus, girls used more compensatory communication strategies such as approaching teachers individually after class (Sunderland, 2000). Some researchers (e.g., Oxford, 1994) also suggested that girls who perform better in FL might be related to their specific learning styles such as “global,” “field dependent,” and reflective strategies. Sunderland (1995) stated that girls perform better on essays, requiring constant application; boys do better on multiple-choice questions, requiring occasional bouts of hard work. Although it is unclear how these styles are socially or culturally constructed, different testing formats might explain the aforementioned performances in GCSE and A-level between males and females in the UK.

Oxford and Nyiko (1989) investigated variables affecting choice of learning strategies adopted by 1,200 FL university students in the USA. The majority were English L1 speakers studying total of five languages. Strategies Inventory of Language Learning (SILL), which contains 121 self-reported items

with a 5-point frequency response scale, was adopted. The results of factor-analysis revealed five factors. It was found that females reported more frequent use strategies of “formal rule-related,” “general study,” and “conversation input elicitation” than males, whereas males reported no more frequent use than females in any strategies. The researchers explained that the differences could be accounted for unequal division of labour and power in American society. More specifically, men influenced the public sphere, which was assertive and direct, while women were in the private sphere, which was nurturing and indirect. However, the findings should be treated with caution. First, the factor analysis did not indicate the commonalities between the items of each factor. For instance, there may be an overlap between “resource, independent strategies” and “formal rule-rated strategies.” It is unclear how each factor differentiates with others. Moreover, “general study strategies” and “formal rule-rated strategies” may involve more effort than cognition. For example, studying in a quiet environment is more related to doing things rather than thinking the language itself. Concerning the gender differences, it is unclear why men used strategies less frequently (i.e., Did men use fewer strategies? Or did females tend to report strategy use more comprehensively than men?). The researchers did not report how the strategies were related to the public or private spheres. Furthermore, the self-report instruments are often criticized for respondents’ truthfulness, and the issue of division of labour might be different nowadays.

Bacon (1992) examined the relationship between gender, comprehension, processing strategies, and cognitive as well as affective response in FL listening by administering two listening texts to 50 English speakers learning Spanish. The findings indicated that women used more metacognitive strategies, while men were more confident and used fewer strategies. Bacon concluded that despite differences in strategy use, there was no significant difference in the level of comprehension between men and women. However, the explanations were not clearly illustrated such as the inter-relationship between

strategy behavior and confidence. Like Oxford and Nykio's (1989) study, the self-report behavior issue (whether men tended to report their confidence, whereas women were more likely to report strategy use) cannot be neglected.

Goh and Foong (1997) examined language learning strategies used by 175 Chinese ESL students. Adopting Oxford's (1990) SILL questionnaire, six categories, namely memory, cognitive, compensation, metacognitive, affective, and social, were found. Supporting previous research (e.g., Green & Oxford, 1995; Oxford, 1993), their results revealed that females used compensation (e.g., using gestures) and affective strategies (e.g., anxiety management) significantly more often than males. However, the reasons for the gender differences were not explained in the study. It is believed that "face-saving" is prominent in Chinese culture (Chan, 2018), particularly for men. Males generally have higher self-esteem and are more reluctant to show their weaknesses, and so the affective and compensation strategies might be less frequently reported by themselves.

### **3.4 Culture and experience**

Some studies look at gender differences in culture and study abroad (SA) experience. Brecht et al. (1995), for example, conducted a longitudinal and mixed-method study to examine FL gain during SA in Russia. Findings of multiple regression found that gender was a strong predictor of oral gains. Male SA learners tended to attain advanced spoken proficiency in comparison to females. The researchers hypothesized it was due to culture (i.e., role of women in Russia affected the type and amount of interaction and negatively influenced extent of oral gains). Polyani (1995) analyzed Brecht et al.'s (1995) samples and found that while men were encouraged to interact, women's participation provoked negative reactions (e.g., sexual harassment). Similar findings were found in Isabelli-Garcia (2006) who reported that female American SA students in Argentina experienced catcalling or objectification.



van der Silk et al. (2015) investigated gender differences in the acquisition of Dutch among immigrants from 88 countries with 49 L1s. Controlling various variables (e.g., age of arrival, educational level), the findings of cross-classified multi-level regression showed that women significantly and substantively outperformed men on L2 Dutch writing and speaking, but there was no gender gap for listening and reading. The authors opposed the human capital framework and suggested the differences were nature-based due to genetic difference between males and females. However, it is hard to say the results are conclusive because they did not control everything that could possibly be controlled in the research.

### **3.5 Anxiety**

Some studies (e.g., Pappamihiel, 2002; Williams, 1996) indicated that males were less likely to admit foreign language anxiety (FLA) than females. Conversely, Chavez (2000) showed that male students learning German reported higher levels of FL anxiety. Males felt uncomfortable in potential competitive and hierarchical settings and preferred interaction with female classmates over that with male peers. Koul et al. (2009) examined Thai college students' ( $N = 1387$ ) motivational goals and FLA. They found that the motivation goals were associated with self-perceived EFL anxiety. Specifically, females had higher instrumental goals that were associated with the higher levels of anxiety, whereas men had higher cultural goals were associated with the lower anxiety levels. Although role socialization theory and self-esteem theory were used to explain the findings, the relationship between goal orientations and anxiety were not explicitly asked in the self-report survey.

## **4. Conclusion**

In sum, gender may interact with other IGDs and shape the process of L2 acquisition. It seems that the overall quality of most studies is generally not very

good (Briggs, 2020). The gender/sex variable is often not the primary research objective. The aforementioned studies have revealed inconclusive and inconsistent findings. At the same time, more evidence shows females appear to be doing better at L2 acquisition in some contexts but not in some SA contexts. Some theoretical and empirical research suggests that the environment impact may be more significant than the biological factor, which means nurture may be more important than nature. Females appear to be more motivated and use more strategies. However, there is no concrete answer for the reasons. More research is needed to examine how gender interacts with other IGDs in L2 learning using a variety of measurement in different contexts (e.g., developing and non-western countries) where relevant issues are under-researched.

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