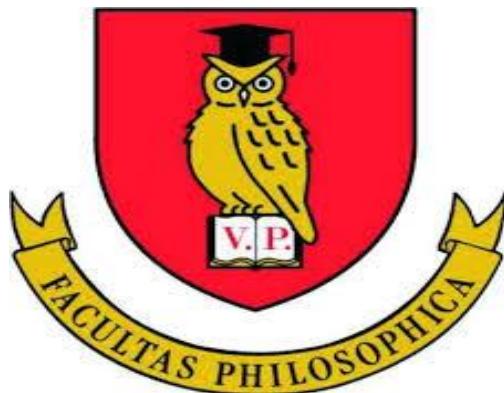


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The Effect of Metalinguistic Awareness and the Previously Learned Foreign Languages on Fourth Language Acquisition by Adult Learners

Thesis for obtaining a PhD degree in the Multilingualism Doctoral School of the University of Pannonia

in the branch of Linguistics

2021

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Abstract

The dynamics and complexity of the multilingual system have attracted many linguists to study and explore this phenomenon. What factors might support or impede multilingual acquisition are quite controversial. Some researchers concentrate on the linguistic system itself. Others believe that social and educational bonds are the driving forces in this process. The overall aim of this study is to contribute to our understanding of the nature and the driving force of this multidimensional phenomenon in the Syrian context. The present study investigates the impact of metalinguistic awareness and previously learned foreign languages on learning German by adult students at the Higher Language Institute (HLI)/Damascus University and the Arab International University (AIU). The main framework of this study is the Dynamic Model of Multilingualism by Herdina & Jessner (2002). The first group of participants contains 118 FL true-beginner learners taking German courses at the HLI. In addition, eight German language teachers were interviewed. The second group of participants contains 83 FL true-beginner learners at the Arab International University as well as 2 teachers. To conduct this study, the author used the following tools: The first one is a questionnaire to collect background information about the students' language history. C-Tests were used to measure the students' proficiency in English and French. The third instrument contained two metalinguistic tests in English and German. A German exam was conducted at the end of the course to evaluate the learners' German language achievement. The data analysis showed that there is a significant correlation between English and French language proficiency and the acquisition of the German language. Moreover, the linear regression test demonstrated that English and German metalinguistic test scores were able to predict the German exam grades. In addition, the participants' level of education and age were among the variables that were found to impact

German language acquisition. Nevertheless, gender and motivation were not significant factors while acquiring German.

Overview of the Dissertation

The present dissertation is divided into six main chapters. The first chapter presents the complexity of fourth language acquisition, i.e. German language, in the Syrian context. It introduces the core quires that induced conducting this research. Additionally, it outlines the research questions, hypotheses, and the significance of the study. Chapter 2 defines the multilingualism phenomenon and the area of TLA research in which the most outstanding models in the field of multilingualism acquisition research are presented. The variables which are believed to affect multiple language acquisition are discussed from the DMM perspective. It examines the role of the linguistic, cognitive, and psycholinguistic variables on fourth language acquisition.

Chapter 3 sheds light on the methodology in which the tools used to collect data from participants are outlined in detail. The fourth chapter demonstrates the results of the collected data in which the findings of the study are propounded in tables and figures. Chapter 4 is divided into two main sections. The first section is allocated for presenting the results from the first part of the study, i.e. data collected from the participants at the Higher Languages Institute. Whereas, the second section demonstrates the data results from the second part of the study, i.e. data collected from the participants the Arab International University. Chapter 5 discusses the results by connecting them to the previous studies in the field of multilingualism and third language acquisition. The researcher concludes this study with a summary and some recommendations for future similar studies.

Introduction

Studying the multilingualism phenomenon has been a challenging topic in the last three decades because of its complex and diverse nature. The multilingualism notion is more prevalent than the monolingualism norm. There are around 7000 languages in the world and about 200 independent countries (Cenoz, 2013b, p. 1). De Zarobe & de Zarobe (2015) affirm that multilingualism is a reflection of the speakers' society. This reflection can be seen in the Syrian context during the crisis. Despite the tough war in Syria, adult students aspire to master foreign languages as they are regarded as a requisite to gain knowledge and seek a better future. However, the Syrian crisis and sanctions on Syria isolated the students from the rest of the world. Before 2011, there were international institutes where learners could learn foreign languages from native speakers such as the British Council and the Goethe Institute. In 2013, most foreign institutes and embassies closed due to sanctions. As a result, adult students do not have the chance to communicate or learn a foreign language from native speakers. For that reason, foreign language teachers and learners have to resort to internal factors such as similarities between the foreign languages and metalinguistic skills, rather than external resources to fill this gap. This recent phenomenon induced the need to study it and explore the best ways used around the world to enable students to benefit from their previously learned languages and cognitive skills to facilitate the acquisition process of learning new foreign languages.

The Framework of the Study

Chapter Two manifests the background theory and the general framework of the current study. Moreover, Chapter 2 sheds light on the TLA studies, perspectives about the multilingualism notion, and the different models that tackled this phenomenon. It also discusses the most important factors regarding TLA from the DMM perspective. Factors that are believed to affect multilingual learning such as metalinguistic awareness (Cenoz and Valencia 1994; Jessner

1999), previously learned foreign languages (Herdina and Jessner 2002; Sanz 2000; Swain et al. 1990), degree of exposure and use (Cantone 2019) age (Cenoz 2018; Torras 2001), gender (Spellerberg 2011), and self-efficacy beliefs (Raoofi, Tan, and Chan 2012) have been illustrated in this chapter. Lastly, the process of third language acquisition and an overview of the TLA research are presented at the end of the second chapter.

Multilingualism Notion

Defining multilingualism notion is quite controversial. No consensus has been reached to define this widespread phenomenon. Aronin (2019, p. 3) states that "multilingualism is a complex, vibrant and ever-intriguing phenomenon". Vetter & Jessner (2019, p. 2) explain this complexity as "there are various definitions of multilingualism depending on the research background and theoretical orientation". Moreover, many linguists assume that multilingualism can be listed under the umbrella of third language acquisition. Hufeisen (2020, p. 4) clarifies that reaching a comprehensive and specified definition is far-fetched to define this notion:

Only in the 1990s did it gain more intensive attention when the concept of L3 evolved and the question arose whether L3 is just an additional (and not separate) L2 and can be treated as just another L2 or whether the fact that (at least) three languages are involved makes a difference compared to two involved languages. This question has not yet been fully answered, and it will probably never be answered because theoretical viewpoints, decide whether a researcher considers L3 (or Ln) as just another L2 or whether s/he believes that L2 and L3 and Ln have to be studied in their own respective right.

The adopted vision of the multilingualism notion in this study is in line with that presented by Herdina & Jessner (2002) in their Dynamic Model of Multilingualism. According to DMM "bilingual systems are variants of multilingual systems but not equated with multilingual systems since multilingualism ranges from monolingual acquisition, that is the learning of an L2 by a native speaker, to balanced bilingualism or even ambilingualism and to the command of three or more language systems to point out a few stages" (pp. 117–118).

Multilingualism Models

A number of linguists during the last thirty years proposed different models to study and explore the multilingualism phenomenon. Some models concentrated on multilingual processing, while others combined different theories to study multilingualism from different angles. TLA researchers, who differentiated between L2 and L3 acquisition, evolved theoretical models to study the multilingualism notion and the education perspectives of the multiple language learning in the light of TLA theory and empirical studies.

The Dynamic Model of Multilingualism by Herdina & Jessner (2002)

The Dynamic Model of Multilingualism (hereafter DMM) describes research on multilingualism as referring to any kind of multiple language acquisition. It also discusses the qualitative changes in language learning related to an increase in the number of languages involved in multilingual development and use (Jessner, 2008). The rationale behind choosing this model as the framework of this study can be attributed to the fact that it examines the learners' internal and external variables in an integrated manner in which all of these variables are parts of the system. Thus, this model acknowledges the context i.e. the impact of the cognitive, linguistic, social, psychological, and educational resources on the multiple language development and use.

Multilingual proficiency in DMM is seen as a fluctuating construct rather than a stable one. Jessner (2017, p. 5) defined multilingual proficiency as "a cumulative measure of psycholinguistic systems in contact". Multilingual development has negative and positive growth to suit the perceived communicative needs of the learners' on the social and psychological levels.

A key factor in this model is the Multilingualism or the M-factor which is defined as "a set of skills and abilities that the multilingual user develops owing to her/his prior linguistic and metacognitive knowledge (Jessner, 2008b, p. 275). The M-factor is an emergent property that can contribute to the catalytic or accelerating effects in TLA. The key variable in the M-factor is metalinguistic awareness, which consists of a set of skills or abilities that the multilingual user develops due to her/his prior linguistic and metacognitive knowledge. The multilingual system, according to DMM, is affected by the initial state, and it is conditioned by the interaction of the learners' multiple languages (e.g. Todeva and Cenoz, 2009). De Bot et al. (2007, p. 8) confirm the importance of the initial state "the development of some dynamic systems appears to be highly dependent on their initial state, minor differences at the beginning may have dramatic consequences in the long run". This butterfly effect is one of the key characteristics of the dynamic systems in the development of Lx. According to the DMM model, both internal and external factors can cause a change in the multilingual system. Larsen-Freeman (2014, p. 15) states, "the systems with different initial conditions follow different trajectories, leading to divergent outcomes".

According to DMM, the development of multilingualism is complex, dynamic, and nonlinear, and it cannot be predicted. Moreover, different factors such as metalinguistic awareness (Jessner, 2006), language learning strategies (Kemp, 2001 & 2007), and cross-linguistic knowledge (James, 1996) can enhance language learning in educational contexts. Studying the multilingualism notion requires combining different approaches like that in the DMM. Cenoz, (2013b, p. 2) states, "Multilingualism is a very complex phenomenon and it can be studied from different perspectives in linguistics, psycholinguistics, anthropology or sociolinguistics. Different aspects of multilingualism receive more or attention depending on the discipline".

Methodology

Chapter 3 discusses the research methodology that is used in this study to investigate the metalinguistic awareness and the previously learned languages on learning German as a fourth language by adult true-beginner learners at the HLI and AIU. In addition, a detailed background description of the context of the study and the participants is demonstrated. The subsequent section introduces the used instruments and the procedure of collecting the data. The chapter is concluded by providing details about the data analysis and the used statistical tests in this research.

Context of the Research

The first part of the study was held at the Higher Language Institute (hereafter HLI)/ Damascus University. The HLI is a public institute at Damascus University. It is responsible for hiring language teachers at Damascus University. It offers language courses for lecturers at Damascus University for free during the morning courses. It also provides language courses for adult learners above the age of 18 during the evening courses. The rationale behind choosing this institute to conduct this study can be attributed to its ranking. According to the Webometrics ranks of institutions (2018), Damascus University ranked first among Syrian universities. The duration of the German course A1/1 is fifty hours per course (five days a week). Each session lasts two and a half hours. The coursebook is *Menschen*. Six units are usually covered during the A1/1 course, and the researcher collected data from six classes during 2018.

The second part of the study was held at the Arab International University (hereafter AIU). The AIU is an institution of higher education and scientific research, which included faculties that teach pharmacy, informatics, communications engineering, business administration, architecture, and arts. The reason behind choosing this private university to conduct the second part of the study can also be attributed to its ranking. According to webometrics (2018), Arab International University ranked first among Syrian private universities and seventh among Syrian Universities. The duration of the German course A1/1 at the AIU is thirty hours per course (one session per week during the autumn and spring semesters, and two sessions during the summer semester). Each lesson lasts two hours. The taught coursebook is Studio D. Five units are usually covered during the A1/1 course, and the researcher collected data from four classes during the academic year 2018-2019. This study was conducted at two places to investigate different socioeconomic factors. The first part of the study was conducted at the HLI which is a public institute at Damascus University, and most of the participants are middle-class people. However, participants at the AIU are usually wealthy since this university is a private one.

Testing Population

The sample of this research consists of two groups:

The first group includes 118 FL true-beginner learners taking German courses at the HLI. However, only 92 learners completed all the tests. Additionally, eight German language teachers were interviewed.

The second group of participants contains 83 FL true-beginner learners at the Arab International University and 2 teachers. Only 65 students filled all the tests. Figure (3.3) demonstrates the gender distribution of the sample at the AIU.

Research Tools

Five instruments were used in this study to collect data:

1. Language History Questionnaire (for learners)
2. Interviews (for teachers)
3. C-Tests: (English C-Test and French C-Test)
4. Metalinguistic tests: English Meta-linguistic test and German Meta-linguistic test
5. German achievement test

Results and Discussion

As previously presented, this study aims to examine which variables can impact the acquisition of German as a fourth language i.e. to study the role of the previously learned foreign languages. Moreover, to investigate whether metalinguistic awareness would be a strong predictor of the German language exam scores. The main variables, which were measured by the administrated tools, are reported descriptively and analytically.

Foreign languages' Proficiency Role while Acquiring the Fourth Language

Question 1 in this study addressed the relationship between English as an L2, French as an L3, and German as an L4. To investigate the first hypothesis, a Pearson correlation test was used to explore the relationship between English and French proficiency and German language acquisition as a fourth language. The results show a strong correlation between the German exam's scores and English C-Test scores. Moreover, there is also a strong correlation between the German exam's scores and the French C-Test scores. The results of the first question are in line with the assumption of the DMM that asserts the positive role of the previously learned on

the acquisition of an additional language under certain circumstances. This result is in the same vein with the result of the study by Gibson & Hufeisen (2001), who affirm that foreign languages knowledge can facilitate the acquisition of an additional language. They gathered data from 64 men and women who performed a pen and paper task that requires filling in the correct preposition to go with the verb, and they state that:

[k]nowing more foreign languages, especially similar ones like English and German, facilitates the learning, especially the reception and perception, of yet further languages in general, because learners tend to use – among other conscious and subconscious strategies - transfer techniques which make use of their different (foreign) languages in order to understand or produce the target language item(s) (p. 87).

Also, Todeva and Cenoz (2009) confirm that prior linguistic knowledge reinforces learning all foreign language skills and on all levels. They confirm the superiority of the bilinguals over monolinguals while acquiring a third language. Another study that was conducted by Cenoz and Valencia (1994) highlights the impact of bilingualism in the Basque country on third language acquisition by school students. The results show a close connection between bilingualism and third language acquisition. Many researchers can attribute this superiority to the broader linguistic repertoire acquired by bilinguals and multilinguals. From the DMM perspective, third language learners differ from second language learners in many ways. Jessner (2008b, p. 5) states "the influence that the development of a multilingual system exerts on the learner and the learning process such as greater expertise in learning skills and qualities distinguishing the experienced from the inexperienced learner." (p.5). This result is in line with Interdependence hypothesis. The previous linguistic knowledge of the learners at the HLI and AIU i.e. "underlying proficiency" in English and French are found to present significant variables. This means according to CUP that they can enhance the cognitive transfer and academic skills based on the two foreign languages (English and French) to the new acquired language (German).

As discussed in Chapter 2, most of the third language studies concentrate on the advantages of bilingualism on third language acquisition and the superiority of the bilingual learners over the monolingual ones in TLA. Nevertheless, when focusing on specific aspects of foreign languages' proficiency, some studies show no differences between bilinguals and monolinguals. For instance, van Gelderen et al. (2003) conducted a study in Netherland to compare reading comprehension skills between bilinguals and monolinguals Dutch secondary students. The results of that study show no differences between the two groups regarding reading comprehension skills. In the same vein, Cenoz and Valencia (1994) conducted a study in which bilingual readers performed significantly lower than monolingual ones. However, Cenoz (2013) attributed this result to the fact that "bilinguals do not necessarily have advantages across-the-board in every aspect of TLA, so studies that select a narrow linguistic focus may not find any differences" (p. 77). Which might be linked to the learners' need of training to develop awareness across languages. Hufeisen & Marx (2007, p. 306) reiterate that "knowledge in various languages often need instruction and help"

Not only linguistic knowledge but also the linguistic distance among the three foreign languages in this current study has a key influence over the newly acquired knowledge. The Arabic language is typologically distant and has not been tested in the L1 speakers of Arabic. The positive influence has been attributed to the closely related languages (see also Rothman, 2011). The three foreign languages i.e. English, French and German are Indo-European languages i.e. they share the same typological system, which means that transfer is believed to occur to the most typologically similar target language. Jessner (2006, p. 118), whose study also concentrated on German, Italian, and English, affirms that "typology and recency of use seem to play a decisive role in multilingual production".

Metalinguistic Awareness and Fourth Language Acquisition

Another factor, which is also linked to multiple language learning, is metalinguistic awareness which is based on a large body of studies on TLA. From the DMM perspective, a high level of metalinguistic awareness is associated with the acquisition of multiple languages. The second hypothesis in this study assumes that the German language proficiency would be affected by metalinguistic awareness in English and German. A simple linear regression test was calculated and the results show that English and German metalinguistic awareness scores can predict 49% of the variance. This regression analysis weighs the relationship between English and German metalinguistic awareness and German language proficiency, which is in the same vein with many studies that highlight the direct connection between metalinguistic awareness and the acquisition of an additional language. Jessner (2014) confirms that multilingual learners develop multilingual awareness and skills as a result of their multiple linguistic resources. From the DMM perspective, second language learners differ from third language learners in terms of their metalinguistic level, learning strategies, and their acquisition of an additional language due to contact with a third language. TLA studies affirm that multilingual learners' competence in multiple languages can result in reinforcing metalinguistic awareness' levels. For example, Jessner (1999a, p. 206) collected data from trilingual adults learning English as an L3 by using think-aloud protocols in academic writing tasks in L3. She points out that "[m]etalinguistic awareness, which is seen as enhanced in multilinguals, plays a central and facilitating role in the acquisition of additional languages". Moreover, Cenoz & Gorter (2011, p. 4) collected data from 165 secondary school students who speak Basque or/and Spanish as L1 and English as L3. They also pointed out that "one of the outcomes of bi/multilingualism often associated with the acquisition of additional language is the development of metalinguistic awareness".

This result supports the hypothesis that multilingualism is associated with higher levels of metalinguistic awareness which in return can facilitate learning German as a fourth language.

The Degree of Exposure and Use of L2 (E) and L3 (F) on Fourth Language Acquisition

To investigate the role of the duration of exposure to L2 (English) and L3 (French) on German language proficiency, a Pearson correlation test was conducted. The data results show a strong correlation between the average years of exposure to French and German language proficiency. However, when the study was replicated at the AIU, there were no significant correlations between these variables. This result is in contrast to the many studies that explored the impact of exposure on foreign language acquisition. For instance, Lindgren & Muñoz (2013) conducted a study to investigate the impact of the parents' educational level, the degree of using the foreign language, frequency of exposure, and use on the participants' listening and reading scores of 865 students from seven countries. The regression analysis results showed that both degrees of exposure and parents' FL use explained 26.8% of the variance in the listening and reading scores. Another study that was conducted by Cenoz & Valencia (1994) examined the influence of bilingualism on learning English as an L3. The results of the regression tests showed that exposure is a good predictor of third language achievement. Language exposure is classified under sociolinguistic factors in which the learners' use of language at home may affect the degree of proficiency. However, the current result can be attributed to the fact that the Syrian participants did need to use English and French in their daily life. According to Thomas (1988), this exposure can have a positive impact if the background languages have been actively employed by the learners. This "adequate" element i.e. proper exposure was missing in the Syrian context which is in line with the claims of Cenoz (2013d), which associated more exposure to better proficiency. Most of the participants in this study finished high school and got their bachelor's degrees during the current crisis in Syria. Syria has been

subject to sanctions since 2012 in which most of the foreign embassies and establishments are closed until the date of collecting data in 2018 due to sanctions. For example, if Syrian students want to take the IELTS exam, they have to travel to neighboring countries such as Lebanon or Jordan to take a very costly exam. Syrian students have been isolated from the world for 9 years so far.

The results of the data concerning the relationship between the onset of exposure to L2 (English) across the environment and English and German proficiency show a strong correlation between English proficiency and the onset age of using English with friends and while using technology. Moreover, there is a strong correlation between German proficiency and the onset age of using English to surf the net. However, when the study was replicated at the AIU one variable was found significant, namely the onset age of using English at home which is in line with the study of Cenoz & Valencia (1994) in which they found the language use at home enhances third language proficiency.

However, the relationship between English use across activities and English and German proficiency was not found that significant in this Syrian context. The results of the Correlation test found only one variable that is significant namely, using English while watching TV. This result is not surprising since the participant reported that it is the most actively used activity per day by the participants in which the mean duration of the degree of using English while watching TV was the higher duration in comparison with the other activities ($M=2$) per day. Nevertheless, when the study was replicated at the AIU, no correlations were found between the degree of using English across activities and English and German proficiency. This result can be attributed to the fact that the participants do not use English during their daily activity, which might influence their proficiency. Most of the learners of foreign languages use these languages inside the walls of their classrooms. No real contact or use is detected in the Syrian context during the current crisis, which might help the development of this knowledge. This result is also in line with Cummins (1981, p. 29) Interdependence hypothesis, which states the following:

[i]nstruction in Lx is effective in promoting proficiency in Lx, transfer of this proficiency to Ly will occur provided there is adequate exposure to Ly (either in school or environment) and adequate motivation to learn Ly.

Surprisingly there were significant correlations between the German proficiency and the onset of exposure to the speaking, reading, and writing skills in French in both parts of the study even though that most of the participants did not do well in the French C-Test. The participants are considered beginner learners according to the results of the test. However, this result is in line with many studies that highlight the impact of the last acquired language on TLA (De Angelis 2007; Bardel and Falk 2007; Williams and Hammarberg 1998). This result is in line with Bardel & Falk's (2007) study that shows that multilingual learners (L1/Swedish, L2/English, and L3/Dutch) tend to transfer the syntactic pattern from their L2 rather than L1. De Angelis (2007) associates this tendency to the learners' "association of foreignness" i.e. they opt to *system shift* in which the foreign language is utilized as the source of knowledge rather than the native language.

Psycholinguistic Variables and Fourth Language Acquisition

Question 4 investigates the role of self-efficacy in L2 and L3 on German proficiency. The results of the correlation tests show that there is a strong correlation between self-efficacy and Learning German. The results of this question are in the vein of many studies that linked self-efficacy beliefs and foreign language acquisition. Mills et al. (2006) collected data from 95 adult learners of French/L2. The findings demonstrated that there is a strong correlation

between reading proficiency and self-efficacy. A more recent study was carried out by Hsieh & Schallert (2008) to investigate the role of self-efficacy on English proficiency. Moreover, some studies linked low self-efficacy beliefs to worse performance. For example, Vandergrift (2005) reported correlations between low performance in listening tasks and low self-efficacy beliefs.

The differences in the German exam scores in relation to the participants' motivation have been found insignificant. Sixty percent of the learners reported that they want to learn German because they want to travel to Germany. Cenoz (2013c, p. 111) confirms that "knowledge of languages will facilitate mobility". Gardner (1985) categorizes this kind of motivation as an instrumental motivation when the learners are enhanced to acquire the language to benefit from it in the future. The result of the One-way ANOVA test shows no significant differences in the exam mark according to motivation. This result is to the contrast of many studies that investigated the impact of motivation on learning a foreign language. For example, Gardner (1985) noticed a significant correlation between motivation and French achievement, see also (Gardner & Macintyre, 1991). This result is not surprising considering the German language status in the Syrian context i.e. there is no direct result of the German language knowledge on the participants' daily life or near future. However, the Dean and teachers at the Higher Language Institute attributed the increased number of the German courses at the institute to two reasons. The first reason can be linked to the fact that most of the participants are waiting for family reunification or planning to travel abroad. Secondly, the German Embassy requires A1/1 level certificate for visas, and this institute is a public institute, which might give more weight to the certificate.

Question 5, on the other hand, investigates the role of the different psycholinguistic variables such as gender, strategy use, education, and age on the acquisition of German. The independent t-test shows that there are no significant statistical differences in the exam scores between males and females. This result is in line with a study that was conducted by Dewaele (2007) to predict L1/Dutch, L2/French, L3/English, and L4/German high school learners' scores according to some psychological and sociocognitive variables. Dewaele collected data from 47 females and 42 males aged between 17 to 21 years old. The results affirm that gender differences do not affect the learners' scores. Another study was carried out by Nshiwi and Failsofah (2019) to investigate the language fluency of adult multilingual participants. The results show that females outperformed males in the semantic and phonological tasks. However, there was no real significant influence of this outperformance because most of the participants were MA and Ph.D. students who have relatively the same educational background and exposure, and all of them are residents in Hungary. Many studies that highlighted the connection between language acquisition and gender considered the social context of the study, as well as the associations between gender with other variables, such as exposure and the degree of use to explain the gender differences while acquiring an additional language. For example, Ellis (1994) stated that Asian males in Britain outperformed females in English as L2. However, he asserted that this outperformance might be connected to other social factors, such as the degree of exposure. Another study, which was conducted by Piasecka (2010) reports that females usually have more verbal ability. For example, young females begin speaking faster than males. In addition, their articulation and grammar are more accurate. However, Peasecka explains this result because females are more socially engaged in schools.

Moreover, strategy use has been proven to reinforce language acquisition. However, the results of the ANOVA test show no significant differences in the German exam scores according to the used strategies by the learners. This result implies that the learners in both parts of the study did not get enough instruction about the necessary strategies to master the

German skills, which may influence the German proficiency. This result is in line with what Jessner (2006, p. 63) affirms. The author explains that strategy use is:

[d]ependent on individual factors [...]. The use of language learning strategies is dependent on a language learning awareness which guides the learner's learning process, language perception and production.

This result is in line with the study which was conducted by Nshiwi (2020). The findings of her study confirm that learners who were trained explicitly on vocabulary learning strategies outperformed learners who were trained implicitly in the vocabulary task.

TLA research very often controls age and education variables because most of the studies are conducted at schools or universities. However, the first part of the current study was conducted at the Higher Languages Institute that offers courses to learners beyond the age of 18 after they take a placement test. For that reason, these two variables needed to be studied and explored. The differences in the exam scores according to the participants' level of education and age have been found significant. The results of the independent t-test show that there are significant differences in the exam marks according to education. The participants who have a bachelor's degree outperformed the learners who have a high school degree. Several studies focused on the role of literacy and the educational background on third language acquisition, for example, the role of literacy or metalinguistic awareness in language learning (Galambos and Goldin-Meadow 1990; Jessner 1999; Kemp 2001; Swain et al. 1990; Thomas 1992). This result can be linked to the fact that the educational background is associated with higher levels of linguistic and metalinguistic awareness. Cook (1995) affirms that multicompetence resulted from a higher level of education is characterized by diverse mental abilities and greater metalinguistic awareness.

When concentrating on the age variable, the results reveal significant differences. In general, the participants aged between (18-30) years old outperform the older participants aged between (31-58) years old. This result is in line with many studies that confirm that younger adult learners outperform older ones. However, a crucial factor that can justify this result is the intensity of exposure to these foreign languages. Most of the first group of participants (18-30) are still learning English and French at the university. Therefore, the degree of use and the intensity of the exposure are higher than for the older participants. This result is in line with the study that was conducted by Singleton & Ryan (2004) to investigate the age factor in foreign language learning in elementary school. The results showed that early starters outperformed later starters because of longer instruction and exposure. Nevertheless, as Singleton (1995, p. 1) stated, learning at every stage is possible if it is "appropriately focused, abundant, and enhanced". Schleppegrell et al. (2008, p.9) explain that

[T]he typical college-age student would be likely to outperform the older adult in programs that focus almost exclusively on listening and speaking, due to physical abilities. However, if a balanced skills approach is adopted, the older adults could achieve well by making the most of their extensive vocabulary and knowledge of grammatical principles.

Another factor, which might explain the differences in the language tasks according to age, is the different teaching approaches. Stephens & Joiner (1983, p. 13) states that elderly foreign language learners might encounter difficulties "if their first foreign language experience involved an approach radically different from the one employed by their present instructor". Adult older-learners are used to the grammar-translation approach. Nevertheless, the current approach used by teachers at the HLI is the communicative approach.

Conclusion

This study aims at exploring the impact of metalinguistic awareness and previously learned languages on learning German as a fourth language by adult learners at the HIL and AIU. It attempts to find out if German language acquisition differs with regard to the learners' previously learned foreign languages, metalinguistic awareness, gender, degree of exposure and use, motivation, strategies use, age, and education. The findings of this research are based on the data obtained from True-beginner German Language learners, Besides, 10 German language teachers at the HLI and AIU while teaching one course namely; A1/1. The results of this research are linked to the findings of similar studies in the field of instructed multilingualism and third language acquisition.

Chapter 6 presents the major findings of the research in relation to the impact of linguistic and psycholinguistic variables on multilingual learning. The main findings are presented as the following:

1. A strong correlation between English and French proficiency and successful German language acquisition is in line with previous research conducted in the field of third language acquisition and thus promotes the positive influence of prior language knowledge on the acquisition of an additional Indo-European language (Jessner 1999, 2006).
2. Metalinguistic awareness predicts German language scores in both contexts of the study. This result supports the importance of the role of metalinguistic awareness while acquiring an additional language. It is evidenced that metalinguistic awareness can reinforce learning German as the fourth language by Syrian adult learners who have already learned English and French as foreign languages.
3. Gender differences between males and females while acquiring German are not found statistically significant in this context.
4. Some aspects of the degrees of exposure and use, such as the onset of exposure of using English with friends and using English while surfing the net have been correlated with German language acquisition.
5. Motivation, used strategies, and gender were not found significant variables while acquiring the German language in this context as they might be influenced by other factors such as teaching methods, the role of German in the Syrian context.
6. Moreover, there were significant differences in the tests' scores based on age and education at the Higher Language Institute.

To sum up, the results of this study imply that foreign languages' knowledge reinforces the acquisition of an additional language (see Hofer & Jessner, 2019). From the perspective of the DMM, multilingual learners are more efficient while learning a new language due to their improved skills. Cenoz & Todeva (2009, p. 278) point out that "multilinguals get many "free rides" when learning additional languages as their prior linguistic knowledge helps on all levels of language – grammar, pragmatics, lexicon, pronunciation, and orthography". Besides, the results of the current study found that metalinguistic awareness could reinforce learning an additional language (see Jessner, 1999; Spellerberg, 2016). The dynamic interactions in the multilingual learner's brain not only improve their linguistic repertoire but also enhance their metalinguistic awareness.

This study highlights the role of the previously learned languages in reinforcing metalinguistic awareness and learning an additional language. Future third foreign language teaching should integrate the learners' previous linguistic repertoire in their classroom and pedagogical approaches. Explicit awareness of the shared linguistic properties can accelerate

additional language acquisition by exploiting an "already developed language system" (Jessner, 2006, p. 124), for that reason, curriculum content, and the language of instruction also need further consideration to promote the multilingual development.

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