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Ibtisam Jassim Mohammed

Department of English
College of Education for Humanities
University of Tikrit
Tikrit, Iraq

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E-mail

journal.of.tikrit.university.of.humanities@tu.edu.iq

E-mail : adxxxx@tu.edu.iq

Learner Differences in Second Language Acquisition

ABSTRACT

This study aims at exploring the debatable issue of learner's differences in second language acquisition (SLA, henceforth). Differences in learning are critical factors which faculty members should take into account in the process of learning and teaching second or foreign languages , also these differences influence learning processes and lead to different linguistic abilities and skills in the second language . Learners differ from each other due to biological, conditioned factors or unconscious forces, each learner is different from the other, and they have different personalities and styles. Some second language learners make rapid and apparent progress while others progress very slowly and with difficulties, in this respect there are several important areas where the learners may show differences from each other. These include: age, sex, aptitude, motivation, cognitive style, personality, and learning strategies.

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الاختلافات الفردية بين المتعلمين في اكتساب اللغة الثانية

ابتسام جاسم محمد/ كلية التربية للعلوم الإنسانية /جامعة تكريت

الخلاصة

تهدف هذه الدراسة إلى استكشاف اختلافات المتعلمين في اكتساب اللغة الانكليزية كلغة ثانية . حيث تعتبر هذه الاختلافات من العوامل المهمة التي يجب على أعضاء هيئة التدريس أخذها بنظر الاعتبار في عملية تعلم وتدرّس اللغات الثانية أو الأجنبية ، كما تؤثر هذه الاختلافات على عمليات التعلم وتنتج قدرات ومهارات لغوية مختلفة في اللغة الثانية. يختلف المتعلمون عن بعضهم البعض

بسبب العوامل البيولوجية أو المشروطة أو القوى اللاواعية ، فكل متعلم يختلف عن الآخر ، ولهم شخصيات وأساليب مختلفة. يحرز بعض متعلمي اللغة الثانية تقدماً سريعاً وعلى ما يبدو بينما يتقدم الآخرون ببطء شديد ومع وجود صعوبات ، وفي هذا الصدد ، هناك العديد من المجالات المهمة التي قد يظهر فيها المتعلمون اختلافات عن بعضهم البعض. وتشمل هذه: العمر والجنس والاستعداد والتحفيز والأسلوب المعرفي والشخصية واستراتيجيات التعلم.

1. Introduction

In the review of the debatable issue of individual differences in second language acquisition (SLA, henceforth), Wolf (2011: 5ff) argues that for both types of acquisition (i.e. mother tongue and SLA), “individual differences are noticeable, which scholars accounted for by individual learner features. It is interesting to note that explanations are only available for SLA. Differences in early first language acquisition (FLA) are explained on the basis of the child socialization and the bodily infliction such as deafness, blindness and motor deficits”. For the SLA, Wolf (2011:8) remarks, “the number of individual learner differences mentioned in the literature is much higher. They include cognitive, social and psychological features”.

Ellis (1994: 522) summarizes the learner differences as highlighted in research prior to 1994. He distinguishes between seven categories which are as follows:

1. **Beliefs:** learners have different beliefs how second language (L2, henceforth) is learnt. These beliefs affect their learning process.
2. **Affective states**, where learners may experience several affective and emotional states as a result of their L2 learning. For example, anxiety or dissatisfaction of their performance in the learning process has negative effects.
3. **Age**, where children may exhibit faster learning rates than adults, and better performance especially in pronunciation.
4. **Aptitude**, which is composed of underlying language faculty and an ability to handle decontextualized language input.
5. **Learning style**, where learners show different learning styles and strategies, e.g. experimental vs. analytical.
6. **Motivation:** there is no doubt that motivation affects the learning process of SLA. Positive motivation may stem from students themselves, their teachers or from previous positive learning experience.
7. **Personality**, where shy learners have been reported to achieve less than the extrovert learners.

On the other hand, Larsen-Freeman & Long (1991: 273) attribute the success of some students and the failure of others in SLA to several reasons, the most important of which are language aptitude, social-psychological factors, personality, cognitive style, hemisphere specialization, learning strategies, and a few others. Their taxonomy lists 6 main categories for individual difference among learners in SLA, which can be enumerated below:

1. Age
2. Sociopsychological factors
 - a. Motivation
 - b. Attitudes
3. Personality
 - a. Self-esteem
 - b. Extrovertedness/Introvertedness
 - c. Fear
 - d. Empathy
 - e. Timidity
 - f. Cognitive style
4. Hemispheric specialization
5. Learning strategies
6. Other factors such as gender

Wolf (2011: 8) explains that several models include virtually the same list of individual learner differences in SLA. Yet, they may present them with different names and/or under different categories. Wolf (ibid) questions why the environment's role in individual differences is not given sufficient attention. He remarks that "it cannot be assumed that individual learner differences should be considered as static predispositions that are available in the same form, unchanged, over the lifespan". He believes that "they are features that develop dynamically in the process of interaction with the environment".

Differences in learning are a critical factor to take into account in the process of SLA. There are several important areas where the learners may show differences from each other. These include: age, sex, aptitude, motivation, cognitive style, personality, and learning strategies. Below we will highlight each difference briefly.

1. Age

It is a common belief that young learners are more successful in L2 learning than adult learners. However, the results of research in this area are conflicting. Some researchers attribute success to near-native pronunciation while others define success as the native grammatical competence.

There are advantages for both children and adults in SLA. Children can make the benefit of brain plasticity. Children are not analytical, and they have fewer inhibitions. Children do not build strong group identity and they use

simplified input to L2. On the other hand, adult learners have more learning capacity and analytical ability. They have pragmatic skills and greater knowledge of first language (L1, henceforth) which helps them learning the L2. Older learners make use of real-world knowledge too. Younger learners are more successful in informal and naturalistic settings. Older learners are more successful in formal and controlled settings.

The central claim in this regard is the Critical Period Hypothesis which as formulated by Lenneberg (1967:22). It states that there is a certain age in which the child is capable of learning the language with ease. The Critical Period starts from birth and starts to decrease by the age of 8 years. During this period, a child can learn several languages simultaneously. Singleton & Leśniewska (2012: 99) argues that “after a certain maturational point the L2 learner is no longer capable of attaining to native-like levels of proficiency, and/or needs to expend more conscious effort than in earlier L2 acquisition and/or makes use of different mechanisms from those deployed in L2 acquisition during childhood, and, in any case, there is a sharp decline in L2 learning potential (different in nature from the more gradual age-related declines in the organism’s general learning capacity)”.

Herschensohn (2013:330)concludes that age has effects on grammatical competence, foreign accent and speed of processing. She contends that there is a critical period for SLA, and she holds the view that “earlier is better”. In other words, if an individual learns the second language at an early age, he/she will do better.

When discussing the age factor or difference, the issue of brain plasticity is of critical importance. Brain’s plasticity means that the brain is as adaptable as plastic or sponge at the early age in childhood. The brain can take up the language functions in either hemispheres should the other one get damaged. Several authors agree that SLA abilities decline with loss of neurological plasticity, but they feel that there is likely more than one neurons physiological cause of the loss of plasticity, not just lateralization. Scovel (1988: 68) enumerates six reasons for decrease of SLA ability: hemisphere specialization, the proportionately rapid growth of the brain compared to body growth, increased production of neurotransmitters, the process of feminization, the proliferation of nerve pathways in the cerebral cortex, and the speeding up of synaptic transmission.

2. Gender

There is widespread belief in the western thinking that females tend to be more successful in L2 than males. However, this belief may be the result of other social and psychological factors. Levine (1966: 84)states that the behavioral patterns are basically feminine, and the men’s behaviors are controlled by the male hormones. Halpern, 2000: 115ff)found that women are

better in memorizing complex forms, while males are better at computing compositional values. Other differences may be related to hormones.

Ay & Bartan (2012: 61-62) state that there have also been studies that document how individual differences affect reading comprehension in a foreign language. The results of some of these studies provide evidence that interest by gender has a facilitating effect on the reading process. In a study on gender differences in achievement test performance at the college level, notable gender differences were found for items associated with specific texts, reporting that females scored higher than males with humanities-oriented reading texts, but lower than males with science-oriented texts.

3. Aptitude

Aptitude has been shown to have an effect on SLA. Dörnyei (2005: 32) states that *aptitude*, *ability*, and *intelligence* are commonly used terms to refer to the same thing. Aptitude and ability have been mostly used interchangeably. Dörnyei (ibid) believes that “aptitude is a strong predictor of academic success”. Slabakova (2016: 103) underscores the fact that “as in every complex learning process, it is very likely that a variety of factors influence successful acquisition of a second language, including factors such as language aptitude and the learner engagement with the language, also known as motivation”.

The assumption that there is a talent for learning language has been held for years. Carrol (1965 as cited in Sville-Troike, 2006: 85) assumes four components of the aptitude for language learning:

- **Phonemic coding ability**
It is the ability to process the auditory input into segments which can be stored and retrieved. If the learner is able to decode the input, then the input becomes intake.
- **Inductive language learning ability**
It is concerned with central processing. This ability converts infers the structure from the input and make generalizations.
- **Grammatical sensitivity**
It is concerned with the central processing. It converts input into patterns, recognizes the grammatical functions of elements, and formulates rules.
- **Associative memory capacity**
It is concerned with how the linguistic items are stored, and with how they are recalled and used in output. It determines appropriate selection from among the L2 elements that are stored, and ultimately determines speaker fluency.

Recent research shows that a talent in all the above four skills is not necessary for successful learning of language. A learner may be successful because of one or more of these skills. However, Skehan (2019: 86ff) re-evaluates the status of aptitude or language abilities in the study of foreign

language. He states that in “recent years, proposals have been made regarding aptitude which de-emphasizes the nature of specific language skills and instead people propose general psychological mechanisms and process as fundamental”. Such proposals, Skehan argues, present contradictions to the assumptions of Carroll (1965) amongst others.

Skehan (ibid) re-examines the issue of the critical period, and the existence of Universal Grammar (UG). He reviews what (Meisel, 2011: 139-142) assumes after the critical period is over:

1. Language learning continues to have full access to universal grammar;
2. Language learning has only partial access to universal grammar, and it gets supported by other structures and processes;
3. Language learning has no access to universal grammar, but it is fully supported by other structures and processes.

Skehan (2019:25) favors the second assumption, where universal grammar tends to operate, even partially, after the critical period is over.

4. Motivation

Vanpatten & Benati (2015: 45) define motivation as “a willingness to learn or do something”. They also argue that motivation can address several issues such as how the learner perceives the target language and culture and the degree, which the learner wishes to interact with the latter, the mental self of learners, and constructs related to contemporary psychology on self-esteem, self-regulation, and other advances in research on human personality.

Motivation largely determines the level of efforts which learners put at various stages in L2 development. Dörnyei (2005: 65) enumerates several reasons why motivation is important in SLA:

1. It provides the primary impetus to initiate L2 learning.
2. It drives the force to sustain the long and often tedious learning process.
3. All other factors involved in SLA presuppose motivation to some extent.

Research into motivation in SLA witnessed several changes and trends. It was at first dominated by the psychological views (1959 – 1990), then by the cognitive views (1999 -2000), and since 2001 onwards, motivation is now examined in the context of the process-oriented SLA (ibid: 66-67).

According to Oxford & Ehrman (1992: 191-192), motivation includes four components:

- ✓ Significant goal or need
- ✓ Desire to attain the goal
- ✓ Perception that the learning L2 is relevant to fulfilling the goal or meeting the need.
- ✓ Belief in the likely success or failure of learning L2.

- ✓ Value of potential outcomes/rewards.

There are two types of motivations: integrative and instrumental. **Integrative motivation** is based on the interest in learning L2 because of a desire to learn about or associate with the people who use it (e.g. for romantic reasons) or to be part of the community. This is common among migrants to USA who want to be part of the American society. **Instrumental motivation** involves perception of purely practical values for learning L2. Examples include getting a job, travel, trade, commerce, higher education or passing a course. The instrumental motivation is more frequent than the integrative one.

Sville-Troike (2006: 87) remarks that “the potential power of motivation can be seen in rare cases where even older learners may overcome the “odds” of not acquiring native-like pronunciation– if sounding “native” is perceived to be important enough”.

5. Cognitive style

Cognitive style refers to individual’s preferred way of processing: i.e. of perceiving, conceptualizing, organizing, and recalling information. The evidence that cognitive style affects L2 learning is not well-established and the claims here have to be viewed with caution. Whatever the case, there are categories according to which learners are classified. These categories are listed in the following table. A learner may not be in one category or the other. They usually fall in between the continuum.

Cognitive styles		
Field-dependent	↔	Field-independent
Global	↔	Particular
Holistic	↔	Analytic
Deductive	↔	Inductive
Focus on meaning	↔	Focus on form

Figure 1: Cognitive Styles Continuum

Chapelle & Green (1992: 54) suggested the taxonomy of field-dependent (FD) and field-independent learners. FD learners need the context in learning, whereas field-independent (FI) learners do not. FD learners are considered more global and holistic in processing new information. They are thought to achieve more success in L2 acquisition via highly contextualized interactive, communicative experiences because that fits better with their holistic cognitive style. Foreign language learners profit from decontextualized analytic approaches and formal instruction.

Other taxonomies were suggested by Ehrman & Leaver (2003: 398ff) which include Random (non-linear)-sequential (linear). Random learners follow their own, internally developed and idiosyncratic order of processing (which may seem random to others), whereas sequential learners prefer a step-by-step,

externally provided order of processing, such as the units in a syllabus (Dörnyei, 2005: 147).

Deductive vs. inductive dimension is another category of learners. Deductive (top-down) processing begins with prediction or rule and then applies it to interpret particular instances of input. Inductive or bottom-up processing begins with examining input to discover some pattern and then formulates a generalization of rule that accounts for it and that may then in turn be applied deductively (Dörnyei, 2005: 147; Ehrman & Leaver, 2003: 399).

Another dimension sometimes considered as a matter of cognitive style is sensory preference for processing input: visual, auditory, and kinesthetic (movement-oriented), or tactile (touch-oriented). Apparently, no one means of processing has an inherent advantage over others, but L2 learners reportedly feel more comfortable when teachers' instructional strategies are congruent with their sensory preference. This dimension may also be age-related, with younger learners showing more preference for kinesthetic and tactile modalities.

6. Personality

Vanpatten & Benati (2015: 126) states that "Every learner brings a set of personality and psycho-emotive characteristics to the task of learning something. Those characteristics have the potential to influence learning, specifically how learner explicitly goes about learning as well as how quickly they learn and how far they get in their learning".

The type of personality may be correlated with the learning outcome, success or failure. Researchers classify learners into categories which represent the ends of continua. The most important personality traits are shown in the table below:

Personality traits		
Anxious	←————→	Self-confident
Risk-avoiding	←————→	Risk-taking
Shy	←————→	Adventurous
Introvert	←————→	Extrovert
Inner-directed	←————→	Other-directed
Reflective	←————→	Impulsive
Imaginative	←————→	Uninquisitive
Creative	←————→	Uncreative
Empathetic	←————→	Insensitive to others
Tolerant of ambiguity	←————→	Closure-oriented

Figure 2: Personality Traits Continuum

Most research directed toward anxiety. Lack of anxiety is an important component of self-confidence. However, we should be careful when reading research about anxiety. The direction of cause and effect is uncertain. Students are more anxious when they participate in studies. Cultural differences may

cause anxiety in classroom. If the teacher is native American and students are Arab, then they are more likely to be anxious.

A very important personality trait is the *willing to communicate*. According to (MacIntyre, 2013: 688-689), willingness to communicate was “originally described as a cognitively based personality trait that reflects differences among persons in their predisposition toward oral communication. The concept is based on the observation that some people are willing to initiate conversation and others tend to avoid it, or at least wait for others to initiate communication”.

It has been found that introvert students do better in school than extroverts. Extroverts talk more. Little study has been carried out on other personality traits in relation to differences in L2 outcome. Dörnyei (2005: 21ff) warns that research into personality traits in SLA reported inconsistent and counter-intuitive results. Several factors, he explains, may be the culprit behind this inconsistency. These include 1) interaction with situation-specific variables, 2) need for less simplistic models, 3) super traits or primary traits, and 4) methodological issues.

7. Learning strategies

Vanpatten & Benati (2015: 133) state that “learning strategies are efforts by learners to enhance or assist their language-learning experience”. Learning strategies involve choice on the part of the learner and a conscious selection (i.e., the learner is aware of deciding the strategy). Learning strategies are goal-directed, i.e., they are used for the purpose of learning or completing the task. They are also effortful in the sense that the learners have to exert some efforts in learning.

Learning strategies refer to the behaviors and techniques the learners adopt in their effort to learn L2. The selection of a strategy is a conscious task and it depends on the level of motivation, cognitive style, personality traits, age, sex, aptitude and cultural backgrounds. The most commonly used typology or classification of learning strategies has been proposed by (Chamot, 2005: 124):

- *Metacognitive*: these strategies attempt to regulate language learning by planning and monitoring. Examples of metacognitive strategies include previewing a concept or principle in anticipation of a learning activity; deciding in advance to attend to specific aspects of input; rehearsing linguistic components which will be required for an upcoming language task; self-monitoring of progress and knowledge states.
- *Cognitive*: these strategies make use of direct analysis or synthesis of linguistic material. Examples of cognitive strategies include repeating after a language model, translating from L1, remembering a new word in L2 by relating it on that sounds the same in L1, creating vivid images, guessing meaning of new materials through inference.

- *Social/affective*: these strategies involve interaction with others. Examples of social and affective strategies include seeking opportunities to interact with native speakers; working cooperatively with peers to obtain feedback or pool information; asking questions to obtain clarification; requesting repetition, explanation, or examples.

Vanpatten & Benati (2015: 134) argue that the classification of learning strategies differs from scholar to scholar, depending on the theoretical school these researchers belong to. They enumerate five types of learning strategies which are listed below:

1. *metacognitive* strategies for organizing, focusing, and evaluating one's own learning;
2. *affective* strategies for handling emotions or attitudes;
3. *social* strategies for cooperating with others in the learning process;
4. *cognitive* strategies for linking new information with existing schemata and for analyzing and classifying it;
5. *memory* strategies for entering new information into memory storage and for retrieving it when needed.

Self-reporting is a common means for collecting information on what strategies learners select, usually with interviews and questionnaires about what they have done or usually do (retrospective reports), or with think-aloud activities which have learners talk about what they are doing while engaged in an L2 learning task (concurrent reports). Randi & Corno (2000: 651) also highlighted the existence of such 'self-regulated learners,' who "seek to accomplish academic goals strategically and manage to overcome obstacles using a battery of resources". They believe that self-regulation is both an aptitude for and a potential outcome of schooling.

A range of findings show "good learners" to have the following major traits (Ellis, 1994: 546):

- Concern for language form (but also attention to meaning)
- Concern for communication
- Active task approach
- Awareness of the learning process
- Capacity to use strategies flexibly in accordance with task requirements

In conclusion, Dörnyei (2005: 162) remarks that language learning strategies have traditionally been included in the taxonomy of individual differences. Yet on a closer look they may not be individual factors at all. After all, language learning strategies constitute an aspect of the learning process rather than being learner attributes proper.

Conclusion

This research examined the types and roles of learner individual differences on SLA from a psychological point of view. It attempted to answer why some students are more successful in SLA than others. The current body of literature contains evidence and counter-evidence for the direct effect of individual differences in SLA. Several taxonomies or classifications of these individual differences exist, and they have been proposed by scholars depending on the theory of language they adhere to. All in all, some individual differences exist in all the taxonomies. For example, scholars are in total agreement that motivation is a decisive factor in SLA. However, aptitude receives less agreement; despite there are several tests of language aptitude. To conclude, the major factors in individual differences include age, gender, aptitude, motivation, cognitive style, and personality and learning strategies. These factors should be taken into consideration by the second language or foreign language teacher inside the classroom.

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