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Second Language Acquisition Digital Teaching Materials: Unit 5 Individual Differences 2

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BEFEKTETÉS A JÖVŐBE

Second Language Acquisition Digital Teaching Materials: Unit 5 Individual Differences 2

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SECOND LANGUAGE ACQUISITION

UNIT #5: INDIVIDUAL DIFFERENCES

5.1 WHAT WE'LL COVER IN THIS UNIT

In this unit we'll be looking at the issue of why some people appear to be more successful language learners than others. To answer this question, we'll be looking at the qualities of individuals, such as intelligence and motivation, and look to see how these qualities might affect the acquisition of a second language. As with many questions like this, we might have simple and straightforward beliefs about how individual differences affect learning, but the actual picture might be rather more complicated. As in the previous units, these online materials will complement and reinforce the materials and approach found in our coursebook. Our coursebook in chapter 3 focuses in detail on a variety of individual differences: intelligence, aptitude, learning styles, personality, attitudes and motivation, identity and ethnic group affiliation, and learner beliefs

For more details and background, consult chapter 3. In this unit we'll cover the following topics:

- What is the good language learner like?
- The promise and problem of correlations between individual differences and success
- Approaches to language learning aptitude
- The effects of beginning age of acquisition on ultimate attainment
- Exploring ideas in more depth: An innovative approach to conceiving of motivation
- A way of thinking about individual differences

5.2 THE GOOD LANGUAGE LEARNER

One place to begin an investigation of individual differences would be to look at the characteristics of people who are successful language foreign or second language learners. This was the approach taken in the early years of second language acquisition research in the 1970s, and the result was an informative book titled *The Good Language Learner*. This descriptive approach relates to how we ourselves think

about what a good language learner is. We have seen example and had person experiences which may guide out thinking here.

TASK: WHAT ARE YOUR VIEWS ON THE GOOD LANGAUGE LEARNER?

Take a look at the following exercise, from an earlier edition of our textbook. Read at the statements and note whether you think that characteristic is important or not for successful *foreign language* learning. Mark “1” for something that is very important, and “5” for something which is not important.

| A good language learner: | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| a. is a willing and accurate guesser | | | | | |
| b tries to get a message across even if specific language knowledge is lacking | | | | | |
| c. is willing to make mistakes | | | | | |
| d. constantly looks for patterns in the language | | | | | |
| e. practices as often as possible | | | | | |
| f. analyses his or her own speech and the speech of others | | | | | |
| g. attends to whether his or her performance meets the standards he or she has learned | | | | | |
| h. enjoys grammar exercises | | | | | |
| i. begins learning in childhood | | | | | |
| j. had above average intelligence | | | | | |
| k. has good academic skills | | | | | |
| l. has a good self-image and lots of confidence | | | | | |

–Lightbown and Spada 2006: 55

If you are like most students who have filled out this survey, you were faced with the problem that all of these characteristics might be desirable, it is not clear which ones are essential or even the most important for successful learning. For example, while characteristic “f”, enjoying grammar exercises, might be beneficial for certain people – especially those who are learning in a classroom setting – it is far from clear that it is essential.

Furthermore, you might have realized that without a specific context in mind it is difficult to evaluate the statements. For example, quality “i”, begins learning in childhood, might indeed have an effect on success, but many of you reading this now are learning a 3rd, 4th or even 5th language as an adult. Does this mean that you will not be successful in learning this language? It seems that you might even be more likely to be successful in mastering a third or additional language. So more context is needed.

Another way to look at the above list of characteristics is to ask ourselves: how can those characteristics be grouped together into categories? Surely some of them are related – such as intelligence and good academic skills, but maybe they are linked by a larger idea? See what you can come up with.

The following four groupings are possible:

Motivated to focus on language itself: (d. constantly looks for patterns in the language; f. analyses his or her own speech and the speech of others; g. attends to whether his or her performance meets the standards he or she has learned.)

Motivated to focus on language use: (e. practices as often as possible; a. is a willing and accurate guesser; b tries to get a message across even if specific language knowledge is lacking)

Personal characteristics related to abilities: (i. begins learning in childhood; j. had above average intelligence; k. has good academic skills.)

Personal characteristics related to values, beliefs and emotions: (c. is willing to make mistakes; h. enjoys grammar exercises; l. has a good self-image and lots of confidence.)

This certainly appears to be a more pleasing approach to the problem. Indeed, being motivated to focus on understanding language itself and engaging in using language must be a key element driving success. Furthermore, this effort might be aided by certain personal, cognitive characteristic which could focus the enterprise of finding and understanding language patterns. Similarly, values, beliefs and emotions that position a person to be a more resilient and persistent learner will benefit them.

These higher-order categories also give us as learners and teachers a clear way of thinking about how to help develop and reveal those characteristics in ourselves and our students which may lead to more successful language learning. We'll find out more about these categories at the end of this unit.

5.3 THE PROMISE AND PROBLEM OF CORRELATIONS BETWEEN INDIVIDUAL DIFFERENCES AND SUCCESS

The early promise of research into individual differences was that correlations could be found between characteristics and success and then it would then be possible to predict who would most likely be a successful language learner. A correlation, of course, is a measurement of how two measurements covary, like for example, the amount of gas in your car and the miles driven. As the number of miles go up the amount of gas left in your car goes down, which is a classic negative correlation – the numbers are moving in opposite directions. Concerning language learning, we may have a sense that IQ might correlate positively with success in language learning, that is, as IQ goes up, a person is more successful in language learning.

But, the promise of these straightforward correlations has not been realized in practice, as is made clear in our textbook. Let's have a look at what Lightbown and Spada say in response to the notion that "highly intelligent people are good language learners".

READING TASK: ARE HIGHLY INTELLIGENT PEOPLE GOOD LANGUAGE LEARNERS?

Read the following passage in answer to this question, and note the ways in which our simply “positive correlation” notion of individual differences may not be sophisticated enough. Note also any good advice we can glean for how teachers can deal with this issue.

The kind of intelligence that is measured by IQ tests is often a good predictor of success in classrooms where the emphasis is on learning about the language (for example, grammar rules). People who do well on IQ tests may do well on other kinds of tests as well. However, in natural language learning settings and in classrooms where interactive language use is emphasized, research has shown that learners with a wide variety of intellectual abilities can be successful language learners. This is especially true if the emphasis is on oral communication skills rather than metalinguistic knowledge.

Most important, it must be recalled that language learning involves a great many different skills and abilities that are not measured by IQ tests. Students should not be excluded from opportunities to learn another language on the grounds that they do not have the academic ability to succeed. In many educational contexts, students from immigrant or minority groups have no choice about learning a second language. What is essential is to find ways to engage the different abilities that students bring to the learning environment.

—Lightbown and Spada 2013:170

How sure are you now of the correlation between IQ and language learning?

Immediately we can see some possible problems with our correlation model. Lightbown and Spada note that high IQ may correlate with success in school where paper and pencil skills are emphasized, but not where learning is done through interaction. They also note that people from a wide range of abilities can be successful. They also point that there are many elements which go into language learning, and IQ may affect only some of them.

What we are left with, as they point out, is the need for teachers to be aware of a variable like intelligence and then find ways of maximizing all student’s success in the classroom. This, it will turn out, is the most important message for teachers to take away concerning individual differences: the effects are complex, and teachers need to be aware of this in their classroom.

It is important to make two more points concerning the promise of applying research on individual differences. First, it is seldom straight forward to define the characteristic that is involved. While a variable like IQ has had a long history of research behind it and clear tests to measure it, other characteristics like different learning styles and personality characteristics are notoriously difficult to define and measure. Although serious research is done on these variables, the question of how to define and measure these characteristics attracts just as much attention as does their interaction with language learning.

Second, adding to this complexity is the fact that the definition of success is also contested territory, which may be dependent on different social contexts where language is used. In some cases, as we’ll see

later in this unit, success might be measured by the ability to make accurate judgments about whether or not sentences presented orally are grammatical or not. This is certainly a valid measure of success, but it might only measure one component of the abilities which would allow a person to successfully use language complex situations such as business negotiations or representing leading a multilingual research team. So the notion of what success is can be rather elusive.

Nevertheless, even with these reservations in mind, it is certainly valuable to have a look at how individual differences might interact with success. As teachers and learners it makes sense for us to have a keen interest in these issues whether or not clear personal or policy recommendations come from them.

5.4 LANGUAGE LEARNING APTITUDE

Language aptitude has been studied extensively over the years, and various, ever evolving models for this characteristic have been developed. It is safe to say that language learning aptitude, that is, a basic ability which helps drive second or foreign language learning, does exist and plays a role in achieving success. Specifically, people with high aptitude are more likely to be able to figure out grammatical rules from input alone, and may be able to implicitly learn patterns that others have difficulty with.

Language aptitude exists, and our coursebook makes a convincing case supporting it. The original model of aptitude presented in the Modern Language Aptitude Test (MLAT) which was first developed in the 1950s. Although there are more recent and up-to-date tests for aptitude, a brief review of the MLAT will outline what the concept is all about.

The MLAT measures four abilities. *Phonetic coding ability* is the ability to recognize sounds, record them, and then later recall them. *Grammatical sensitivity* is the ability to recognize grammatical functions and see similar patterns in different sentences. *Inductive language learning ability* is the ability to successfully learn from a data-driven perspective without the explanation of rules. And finally *memory and learning* which concerned the ability to memorize pairs of words and phrases in the L1 and L2. The MLAT itself contained five different tests which measured these abilities.

Extensive research and theorizing on language learning aptitude has been done over the decades, and it remains an important area of serious inquiry. Indeed later in this unit we will return to aptitude in the discussion of the critical period for second language learning

VIDEO TASK: THE CASE AGAINST FOCUSING ON APTITUDE

Having suggested that aptitude exists and is a useful issue for teachers and learners to consider, I'd like to turn from this and address the folk linguistic conceptions of the importance of aptitude, and suggest two things. First, teachers' ability to successfully identify who has high aptitude without actually testing them, is extremely weak and may lead to focusing attention and efforts on students who do not necessarily

have high aptitude. And, second, the effects of focusing efforts and attention may be a much more powerful and readily available variable affecting success than aptitude.

This issue has been addressed by Malcolm Gladwell in his book *Outliers: The story of success*. Watch the following video and keep in mind two questions: 1) How can our sense of measuring aptitude be warped and misguided? And, 2) What are the variables which positively affected the success of the people Gladwell speaks about?

Click on the following link:

[Malcolm Gladwell](#) being interviewed about his book *Outliers*. Listen to the first 10 minutes of the video.

How did you answer the two questions? Concerning the first question, Gladwell uses the case of young hockey players to show that when coaches thought they were selecting the best players, they, in fact, were selecting the biggest players, and the size of the players at that time was due to their having been born early in the year, and thus they were bigger than the kids born later in the year. In the case of The Beatles, people have simply assumed that their success was due to natural ability, and ignored, as Gladwell notes, the work that preceded their success.. Gladwell makes the case that in both instances an arbitrary decision or assessment has been made in judging aptitude. We easily imagine ourselves doing the same thing in a language class: we might mistake willingness to communicate or persistence for having aptitude or simply assume that the most successful students in a class must be the most “talented”. In the absence of conclusive testing, we simply don’t know.

But, what is really driving the success of the people Gladwell is talking about? The first is opportunity. The hockey players and The Beatles had the opportunities to develop their skills, and in the case of the hockey players, it was the random chance of the players birthdate which was used to determine who got the opportunity. Second, and most important, in all cases Gladwell talks about, people received excellent practice. That is, they were in a position to put in the difficult work of effective practice, and this led them to their success.

The point that Gladwell is making, and which is worth our consideration as well, is that opportunity and appropriate practice are variables which can have a huge effect on success. In the end, an individual’s aptitude may indeed play a role, but opportunity and effectively practice may help the entire group to achieve greater success.

5.5 THE EFFECTS OF BEGINNING AGE OF ACQUISITION ON ULTIMATE ATTAINMENT

We’ll now turn to an area of interest for second language acquisition researchers as well as for language teachers, students, and parents of students: the critical period for second language acquisition. It will turn

out that research on the critical period not only has implications for the issue of success in foreign language learning – that is, ultimate attainment – but also has implications for how adults and adolescents learn differently from children. Furthermore, this is an area where the effects of language learning aptitude can be clearly seen.

Most of us are familiar with the notion of the critical period for language learning. As outlined in our coursebook in chapter 1, the Critical Period Hypothesis, that is, the hypothesis that there is a period of time during which a child is able to successfully learn their first language. After this period of childhood is over, perfect L1 acquisition is less likely. More specific hypotheses support a “sensitive period” for different linguistic subsystems ranging from infancy to age 16.

The question which is of interest for us is whether or not there is a critical period for second or foreign language learning. Definitive research was done on this question in the 1980s by Johnson and Newport who were able to show that long-term residents who arrive in the United States after age 16 had a significantly lower score on morphosyntactic accuracy than those who arrived before the age of 16. More specifically, there was a strong correlation between morphosyntactic accuracy and age of arrival for those who arrived before age 16, and almost zero correlation for those who arrived after that age. In other words, this is exactly the kind of data individual difference data that is so difficult to find. The first figure below shows the data for participants who arrived in the United States between the ages of 3-15 years old. Along the Y axis, on the side, we can see the scores on a grammaticality judgement task. Along the X axis, on the bottom, we can see the age of arrival of the participants. What can you see in the data?

John and Newport, 1989 – Evidence for the critical period in second language acquisition: ages 3-15

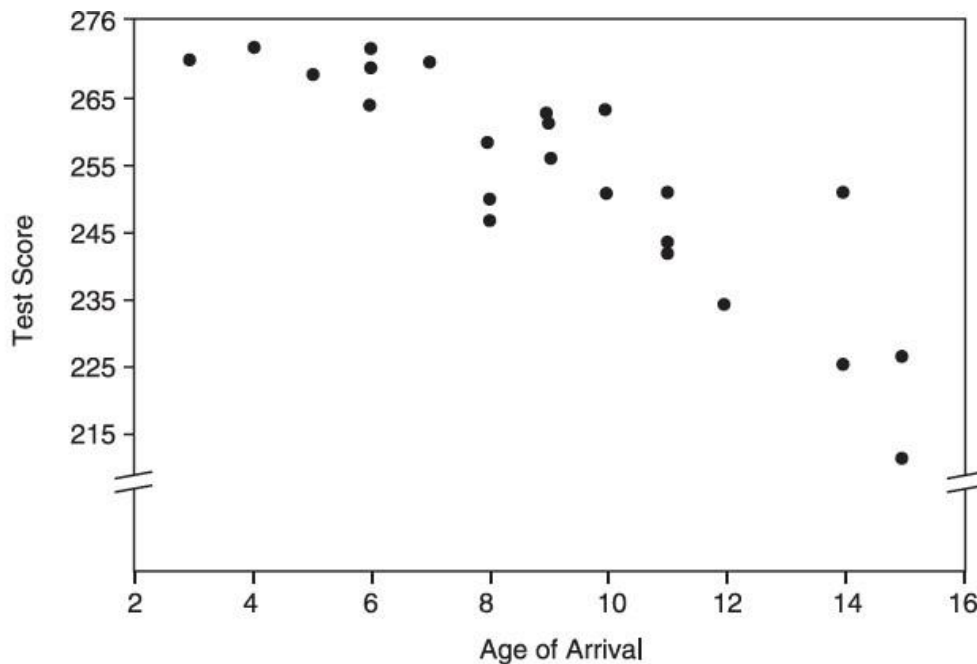


Figure 12.2 Learners arriving, ages 3–15.

Source: From “Critical period effects in second language learning: the influence of maturational state on the acquisition of English as a second language” by J. Johnson and E. Newport, 1989, *Cognitive Psychology*, 21, 60–99. Reprinted by permission.

Each one of the dots on the scatterplot above represents one participant in the study. So for each participant in the study you can look at their age of arrival and their score on the syntax test. What pattern can be found? It can immediately be seen in the data that the earlier participants arrived, the better they scored on the grammaticality judgement task. That is, we can see a very strong correlation between age of arrival and one measure of language proficiency.

Now take a look at the second set of data, for participants between the ages of 17 and 39. What patterns can be seen in this data? The same variables are being measured, but this time the participants are different. Is there an overall pattern in the data? What about the measure of ultimate attainment on the Y axis – how does it compare to the participants who arrived at a younger age?

John and Newport, 1989 – Evidence for the critical period in second language acquisition: ages 17-39

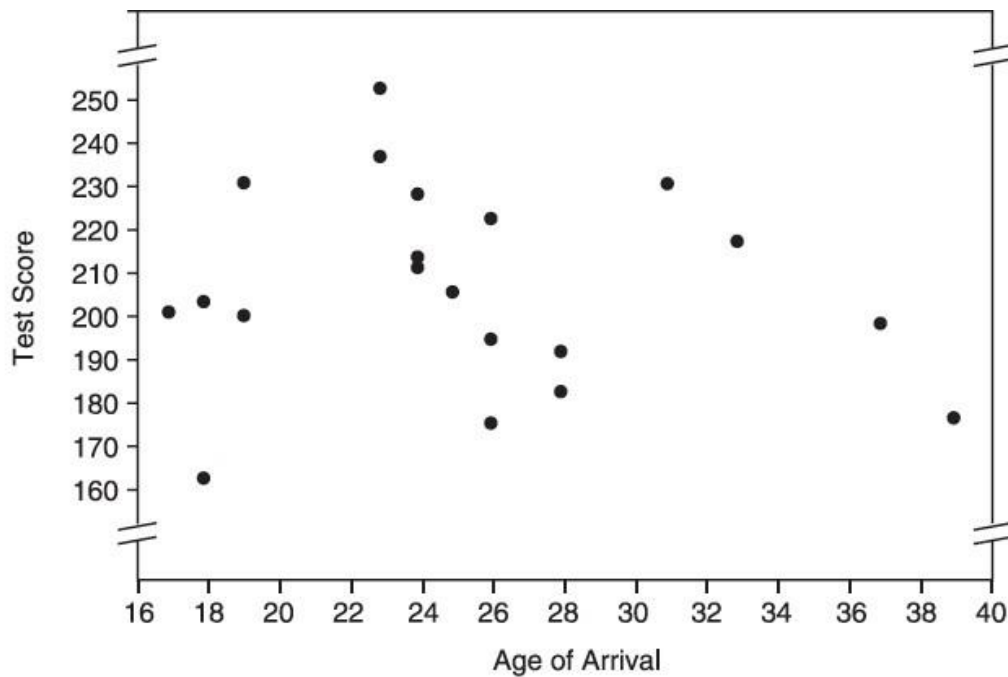


Figure 12.3 Learners arriving, ages 17–39.

Source: From “Critical period effects in second language learning: the influence of maturational state on the acquisition of English as a second language” by J. Johnson and E. Newport, 1989, *Cognitive Psychology*, 21, 60–99. Reprinted by permission.

The results are startling. First, there is no pattern of correlation in the data between the two sets of scores. Ultimate attainment, that is, the score on the syntax test, does not depend on the age of arrival for these participants. Furthermore, the level of attainment is lower than those who arrived earlier – in fact, it is as if there are two separate groups of learners.

Data like this clearly supports the hypothesis that a critical period exists within which learning a second language is likely to be more successful. There are indeed two different groups represented in this data. But, the picture is more complex than this, and an insightful study done by Robert DeKeyser presents a more detailed look at how these two groups are different, and, also of special interest for our discussion of individual differences, he is able to show how some individuals seem to “escape” the critical period

VIDEO TASK: A MORE NUANCED STUDY ON THE CRITICAL PERIOD

Watch the following video by Robert DeKeyser where he explains how his critical period study was set up, and the new conclusions that it brings. In viewing the video, keep in mind the following questions: who seems to “escape” the critical period, and how is learning different for most people before and after the critical period?

Robert DeKeyser on his 2000 critical period study:

<https://www.youtube.com/watch?v=5RjB0KJG2BI>

The help in your interpretation of his research I’ll present below the data from his study, which looked at the exact same variables as did the Johnson and Newport study.

As DeKeyser points out in his interview, one of the major findings was that those participants who had higher aptitude and arrived after the age of 16 were able to score within the range of participants who were in the critical period. Essentially, on this particular measure, they were not constrained by the critical people.

If you look at the figure below, you can see both groups of data arranged together. In the top left hand corner are those who arrived earlier, and you can also see people who score just as high elsewhere in the figure. These, it turns out, are the people with the highest aptitude. So it appears, then, that aptitude does has a clear effect on language learning.

But, it is the second question which is the most important: what does high aptitude give a person after the critical period that people with low aptitude don’t have? And in the video you hear the answer: people with high aptitude have better implicit learning abilities – that is they may be better able to extract out rules from examples – while those with lower aptitude, and after the critical period, are reliant more on explicit learning, where conscious connections between form and meaning need to be pointed out.

DeKeyser notes that this can be seen in the types of structures that are more likely to be mastered by all people and those which are more likely to be mastered by people who are learning within the critical period. For example, yes/no questions are more likely to be mastered by everyone, while wh-questions are more likely to be mastered by those who began learning earlier. As DeKeyser points out, the key variable here is salience: the structure of yes/no questions is easier to notice than wh-questions. Thus people who begin learning later need to have more explicit instruction than people who begin learning earlier.

This last point is of crucial important to people who will become teachers: adult learners will need more explicit instruction in order to become successful. That is, they will need to have form and meaning connections be explicitly made for them in order to aid in their learning. Traditionally the critical period hypothesis has been raised to consider the issue of when instruction should begin, but in fact, one of the key conclusions is *how* instruction should be carried out for different students.

DeKeyser 2000 on the critical period and aptitude:

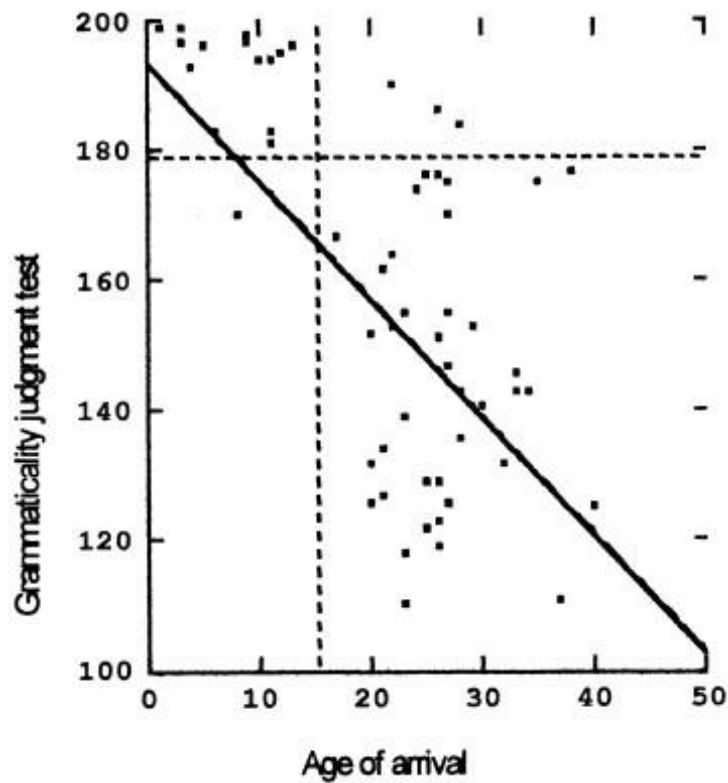


Figure 1. Scores on the grammaticality judgment test (out of 200) as a function of age of acquisition.

A final cautionary note is important to make concerning interpreting critical period studies: the two studies presented here involve students learning a *second* language, not a *foreign* language. Concerning when to begin studying a foreign language, with limited input and exposure and only a few hours a week instruction, it is not possible to say that the critical period studies show that the younger one begins, the better. Further research – as outlined in our coursebook – shows this not to be true. However, the lesson from DeKeyser, that adults rely more on explicit learning than younger learners is a vital finding for teachers to keep in mind.

5.6 EXPLORING IDEAS IN MORE DEPTH: AN INNOVATIVE APPROACH TO CONCEIVING OF MOTIVATION

Motivation for second language learning has traditionally been conceived of as being driven by integrative or instrumental impulses. Someone who is being driven by integrative motivation is motivated to learn a second language in order to integrate with the speakers of that language. One who is instrumentally motivated has a desire to do something with the language or get something from the study of that language. Of course we may be guided by both of these impulses simultaneously, and at different times in our lives. Furthermore, motivation may be intrinsic – that is, coming from within us – and extrinsic, coming from outside us, that is, from teachers or parents.

An innovative approach to motivation has been developed by Zoltán Dörnyei based on work done in social psychology on the “self”. Briefly Dörnyei posits that we possess a vision of our ideal self, of who we might be in terms of speaking a foreign language, and we know our current self. Motivation then is the desire to close this distance between the ideal self and our current self. Furthermore, we are also influenced by our ought to self, that is, what we think others think we need to be doing and accomplishing in language learning. Finally, there is the L2 learning environment which we – and our students – exist in. The three components of the idea self, ought to self, and L2 learning environment drive our language learning motivation. Of key importance to Dörnyei is the ideal self, a vision of ourselves which can be a driver of our language learning.

To find out more about this exciting theory of language learning motivation, read the following summary that Dörnyei makes of his work. Look for his critique of older views of motivation and the opportunities that his theory opens up.

[Zoltán Dörnyei, 2010. Researching motivation: from integrativeness to the idea self](#)

5.7 A WAY OF THINKING ABOUT INDIVIDUAL DIFFERENCES

There are a variety of individual differences which affect foreign language learning, and this unit and our coursebook outline a number of important ones. Indeed, we may hope to look at these individual differences to predict who will be more or less successful in second language learning. This is in fact, by not be such a straightforward enterprise: each of us possesses a complex combination of these characteristics which is furthermore expressed in a context which is affected by personal experience, opportunity, and chance. I’d like to make two points concerning this.

First, as I suggested at the beginning, we it might be profitable to look at these differences in three groups, cognition, emotion, and motivation. As Dörnyei notes, each of these areas may be powerful

attractors of different characteristics which wax and wane and change over time. Thus, what predicts our success is a highly complex constellation of characteristics and experiences which is interacting and changing over time. It is indeed chaotic, but observing and seeing our students – and ourselves – along the three dimensions of cognition, emotion, and motivation may help in our understanding.

Finally, it's my opinion that we need to guard against our natural inclination to believe our intuitions about the qualities people possess and how this will lead to or account for their success or failure. It's important to keep in mind the three general areas mentioned above concerning all of our students and concerning how we set up instruction in general. It is the job of a teacher to set up the best learning environment possible, and to allow opportunities for a variety of individuals to succeed.

5.8 SUMMARY OF THIS UNIT

In this unit I've outlined a general approach to individual differences, and then had a look in more detail at the areas of aptitude, age, and motivation. At each step we have seen that individual differences are real and do have an effect on success. Nevertheless, we need to be suspicious of simplistic implications of differences. This was perhaps most clearly demonstrated by the critical period studies.

Click on the following link for a PowerPoint presentation to hear a summary and concluding remarks concerning unit 5.

[Unit 5 summary and conclusions](#)

5.X KEY CONCEPTS DEVELOPED IN THIS UNIT

individual difference

correlation

aptitude

the critical period

ultimate attainment

salience

motivation

the ideal self

the ought to self

5.X REFERENCES MENTIONED IN THIS UNIT.

DeKeyser, Robert. 2000. The robustness of critical period effects in second language acquisition. *Studies in second language acquisition* 22: 499-533.

Dörnyei, Zoltán. 2010. Researching motivation: From integrativeness to the ideal L2 self. IN S. Hunston & D. Oakey (Eds.). *Introducing applied linguistics: Concepts and skills* (pp. 74-78). London: Routledge.

Gladwell, Malcolm. 2009. *Outliers: The story of success*. London: Penguin

Johnson, J. S., & Newport, E. L. (1989). Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21, 60–99.

Lightbown, Patsy M. and Nina Spada. 2013. *How languages are learned*. (4th ed.). Oxford: Oxford University Press.

Naiman, N. Fröhlich, M. Stern, H.H., and A. Todesco. 1996. *The good language learner*. Clevedon: Multilingual Matters.

Széchenyi 2020. Készült a Szegedi Tudományegyetem megbízásából