1 INDIVIDUAL LEARNER DIFFERENCES

1.1 Introductory note

Apart from those factors that influence the acquisition of a foreign language in general (namely the role of the language environment, the role of input, the role of the first language and internal processing – for more information, cf. Eddy, 2011), there is a set of such influences that vary from one learner to another and differ according to a learner's inner characteristics. Authors within the field distinguish various factors which, as they believe, influence second or foreign language acquisition. Among these, individual learner characteristics play a central role.

Liao (1996:1) distinguishes the following cognitive factors of second language acquisition: (1) intelligence, (2) aptitude, and (3) language learning strategies. Lujan-Ortega (2000) proposes (1) age, (2) aptitude/intelligence, (3) motivation, (4) learning/cognitive style, and (5) personality. Skehan (2002) argues that in literature four main areas are emphasised when considering individual differences in second and foreign language learning: (1) language aptitude, (2) learning style, (3) motivation, and (4) learning strategies. He adds that, according to Dewaele and Furnham (1999), personality is also of certain importance. Bond (2002), in her research on successful language learners, is more accurate in stating the factors that may aid one's language learning and draws more detailed perspective: (1) age, (2) exposure to foreign language in infancy, (3) immersion, (4) intelligence, (5) personality, (6) attitude and motivation, (7) relationship between first and target language, (8) sensory style, (9) learning strategies, and (10) other factors (mimicry, musical ability). The author of the article "Learner characteristics: factors affecting the success of L2 acquisition" summarizes opinions of several authors and concludes that the following factors affect the success of foreign language acquisition: (1) intelligence, (2) language learning aptitude, (3) personality, (4) motivation and attitude, and (5) age of acquisition. It is also stated in the article that due to a lack of detailed research in the area, there is no solid evidence for effect of aptitude, personality and learner beliefs and preferences. A similar approach can be found in Ellis (1985:10) who claims that "there are five general factors that contribute to individual learner differences in some depth": (1) age, (2) aptitude, (3) cognitive style, (4) motivation, and (5) personality.

Liao (1996) asks whether there really is "such a thing as a gift for language learning, distinct from general intelligence" (Liao, 1996:9), which implies that he considers general intelligence (g-factor) one of the most important factors influencing language acquisition. "The study of individual differences in SLA has received considerable attention over the years and has shown that there are a number of dimensions of learner differences which are generally acknowledged to affect the way they learn foreign languages, how they perform in actual language use and the eventual levels of success they achieve" (Lujan-Ortega, 2000:1).

From the above overview, several assumptions can be made. Within individual learner differences, there are a number of factors that influence foreign language acquisition. Most authors state that **age**, **motivation and attitude**, **learning style/strategy** and **attitude/intelligence** are of determinate importance. According to some sources, **personality** and **cognitive style** play an important role, too.

In the following subchapters, the most relevant factors are presented in more detail and research findings in favour of as well as against their importance in foreign language acquisition are introduced. These are important as they are considered the key aspects in acquisition of a foreign language. Individual learner differences influencing foreign language acquisition have been the subject of many research works (Ellis, 1985; Reilly, 1988; Bond, 2002; Walqui, 2000; Liao, 1996; Skehan, 2002). The following are generally believed to play a part in influencing foreign language acquisition.

1.2 Age

The results of research suggest that there is a critical period for foreign language acquisition. This is supported by proponents of Critical Period Hypothesis, which states that human beings are optimally suited to learn certain types of behaviour (including foreign/second language abilities) during a certain age span, and that after this period has passed, learning such behaviour is difficult or impossible (adapted from "Learner Characteristics: Factors Affecting the Success of L2 Acquisition"). Johnson and Newport (1989) state that, in their research (carried out among Chinese and Korean learners who had learnt English in the US for at least

5 years), accuracy on Grammaticality Judgement Test (GJT) correlated with the age of arrival for subjects who arrived in the US before puberty; while accuracy on GJT did not correlate with the age of arrival for subjects who arrived in the US after puberty. Some research (Bilinguals: Separate Minds, 1999) in neurolinguistics provides clear evidence for the Critical Period Hypothesis. It states that the individuals (monitored in the study) who had acquired a second language as young children utilized the same location of Broca's area[1] for both languages.

In connection with the above, though, DeKeyser (2000) found out what can be considered contradictory to Johnson and Newport's findings. He observed that there was strong negative correlation between age of acquisition and score on the GJT. As far as critical period hypothesis goes, research has found that different critical periods may apply to different language skills (Birdsong, 1999). Some researchers suggest that the critical period in its original conception only concerns pronunciation and native-like accent and that other levels of the target language need not be involved (Bongaerts, 1999). Moreover (according to the same source), adult learners can even outperform younger learners in acquisition of second language grammar.

1.3 Sex

Although it is fair to argue that males and females are equal human beings, they demonstrate different features – not just physically; which in most cases is rather obvious, but also mentally. They are said to perform differently in everyday activities, to think in different ways or sometimes even to transform a surface structure to different deep structures and to misunderstand each other in this way. As the way of thinking is closely related to use of language (be it the first or a foreign language); if the thinking of the two sexes differs, it is quite predictable that

[1] **Broca's area** is a part of the human brain placed in the frontal lobe of the left (in most right-handed individuals) hemisphere. This has been proven in studies of such individuals who suffered an injury to Broca's area lost the ability to form grammatical sentences and to use syntax in general. This is why it is assumed that Broca's area is responsible for these functions.
Wernicke's area is a part of the human brain located at the boundary of the temporal and parietal lobes of the left (in most right-handed individuals) hemisphere. Patients who suffered damage to Wernicke's area are unable to recall the correct content words. The sentences they produce are normally-intoned streams of speech with the use of grammatical markers; however, the sense of their utterance is hardly understandable. Wernicke's area is, thus, said to be responsible for assigning the form of the words to their meaning (after Mind and Brain, 2001 and Knezek, 1997). This indisputably suggests that the human brain is designated for certain cognitive operations such as language acquisition. On the other hand, the individuals who acquired a second language past childhood utilized different locations of Broca's area for each of the languages.

the ways they learn and acquire languages will be different. Ok (2003:9) states that “according to several studies, the sex of the students makes a significant difference in learning a second or foreign language” (Politzer 1983, Oxford et al. 1988, Ehrman and Oxford 1989, Oxford and Nyikos 1989, Oxford et al. 1993, Oxford and Ehrman 1995, Lee 1994, Kim 1995, Oh 1996). Baron-Cohen (2003:4) in his research found out that “females have also been shown to have better language ability than males” (Lutchmaya et al, 2002).

1.4 Motivation and attitude

Without any motivation or positive attitude, there can hardly be a successful process of learning. The question why people learn foreign languages can be put forward. According to Trigos-Gilbert (1999) most people nowadays feel the need to speak a new language for personal and professional aims. These aims are the following:

- more employment opportunities;
- better salary prospects;
- higher chances for business success;
- further understanding of someone else’s culture.

According to Thanasoulas (2002:4) “ideally, all learners exhibit an inborn curiosity to explore the world, so they are likely to find the learning experience per se intrinsically pleasant. In reality, however, this "curiosity" is vitiated by such inexorable factors as compulsory school attendance, curriculum content, and grades – most importantly, the premium placed on them”.

Learner’s motivation and needs have always had a central place in theories of foreign language acquisition. According to Ellis (1985:118), “motivation and attitudes are important factors, which help to determine the level of proficiency achieved by different learners.” Savignon (1976:295, according to Ellis, 1985) even declares that “attitude is the single most important factor in second language learning.”

Among linguists, several types of motivation are distinguished:

Brown (1981, according to Ellis, 1985) identifies three types of motivation:

1 global motivation, which consists of a general orientation to the goal of learning a foreign language;
2 situational motivation, which varies according to the situation in which learning takes place;
3 task motivation, which is the motivation for performing particular learning tasks.

Researchers also differentiate between:

1 integrative motivation – learners wish to identify with the target ethnolinguistic group (although this is far more significant in second than in foreign language acquisition),
2 instrumental motivation – learners study to improve their social status or meet educational requirements.

The author of the article "Learner Characteristics: Factors affecting the success of L2 Acquisition", came to the conclusion that the results showed conflicting evidence about the role of language learner's attitude towards success in foreign language learning. Nevertheless, the author states that even if there was no correlation between attitude and success in the early stages; there is definitely a correlation in the later stages.

1.5 Personality

Personality of the learner is another controversial matter being considered a factor influencing foreign language acquisition. A widely-held belief claims that extroverted learners learn more rapidly and are more successful than introverted learners. Krashen (1981, according to Ellis, 1985:120) argues that "an outgoing personality may contribute to acquisition." Likewise Rossier (1976, as quoted in the same source) found out that his subjects' oral fluency correlated significantly with extroversion/introversion. However, there are some research results that contradict the above findings. Naiman et al. (1978, quoted in Ellis, 1985) found no significant relationship between extroversion/introversion and proficiency. Similarly, Swain and Burnaby (1976, according to the same source) did not find the expected relationship between the measures of sociability and talkativeness on the one hand and proficiency on the other in the early stages of acquisition of

French as a L2. Similarly, social skills and inhibition are considered segments of one's personality possibly influencing foreign language acquisition; however, research findings about their actual effect are rather controversial.

1.6 Learning styles and strategies

In the process of learning, be it a foreign language or any other subject matter, certain ways must be used, so that the result the learner wishes for is achieved. **Learning style** is a "general approach to language learning" (Oxford, 1994). The ways the learner applies while studying are called **learning techniques**. If used in combination to develop a plan, they are called **learning strategies**. According to Oxford (1990), **learning strategies** are "specific actions, behaviours, steps, or techniques students use – often consciously – to improve their progress in apprehending, internalizing, and using the L2". "Researchers have identified active strategies commonly employed by learners which help them learn more effectively (Naimen et al., 1978; Wesche, 1979). These include, for example, repeating silently what is heard, thinking through one's own answer and comparing [it] to the one given, memorising dialogues, identifying oneself with one's foreign language identity, seeking opportunities for communication in the target language, and finding ways to widen the scope for social interaction". With regard to preferred learning activities, a **learning style** of an individual can be identified. According to Straková (2004:18), learning styles are "general approaches we use to learn a new language. These are the same styles we use in learning other subjects".

The most general viewpoint differentiates between:

- **analytical (field independent) students** who concentrate on grammatical details but feel less safe in communicative activities. They tend to learn the rules and principles of a language and do not like improvisation or taking guesses if an unfamiliar language situation occurs.
- **global (field dependent) students** who are more sociable, like interaction and communication. They are not keen on grammatical rules and often use compensation strategies[2] to avoid blocks in communication.

[2] **Compensation strategies** allow learners to use the language in spite of gaps in their existing knowledge.

Based on **sensory preference** of an individual learner, the following learning styles can be identified:

- **Visual** – students who prefer to use their sight to receive information;
- **Auditory** – students who prefer to use their hearing to receive information;
- **Kinaesthetic** – students who need active movement and involvement to learn;
- **Tactile** – students who like handling objects and use their touch to receive information.

Another classification divides students into **innovative**, **analytical**, **common sense** and **dynamic learners** (adapted from Svoboda and Hrehovčík, 2006; Straková, 2004).

When acquiring a foreign language, learning strategies can be of significant importance. According to Oxford (1990:9), language learning strategies:

- allow learners to become more self-directed;
- expand the role of language teachers;
- are problem-oriented;
- involve many aspects, not just the cognitive;
- can be taught;
- are flexible;
- are influenced by a variety of factors.

Furthermore, they are "especially important for language learning because they are tools for active, self-directed involvement, which is essential for developing communicative competence" (Oxford, 1990:1).

1.7 Intelligence and aptitude

As far as intelligence as a factor influencing learning in general or foreign language acquisition is concerned; again, rather controversial results have been found. First of all, there is no clear evidence whether aptitude and intelligence are separate issues. Ellis (1985:11) argues that 'aptitude' is to be contrasted with 'intelligence', as the first refers to the special ability involved in language learning and its effects are "measured in terms of proficiency scores achieved by

classroom learners". 'Intelligence', on the other hand, refers to the "general ability that governs how well we master a whole range of skills, linguistic and non-linguistic." On the other hand, Oller (1980, according to Ellis, 1985) states that general intelligence and ability to use language in language tests is essentially the same. Whether we are in favour of the first opinion or the latter, most authors believe intelligence is one of the factors influencing foreign language acquisition. Bogaards (1996) states that many studies have shown the existence of a positive correlation between intelligence and foreign language learning, but also that this link is relatively weak and subject to significant variations (cf. Bogaards, 1988:45). He also adds that links have, for instance, been found between the 'working memory' (Baddeley, 1986) and some forms of intelligence (cf. De Jong and Das-Smaal, 1995). In 1962, Pimsleur, Mosberg and Morrison discussed intelligence in connection with foreign language acquisition. On the basis of 40 articles that they felt were pertinent, they stated there is a "positive correlation between intelligence and foreign language achievement. Intelligence, they said, is a significant factor" (Lambert, 1993:2). According to Gardner's model (as cited in Norris-Holt, 2000:2) "in a formal setting intelligence and aptitude play a dominant role in learning." He also introduces four individual differences which are believed to be the most influential in second language acquisition. These are the variables of intelligence, language aptitude, motivation and situational anxiety. Genesee (1976, as quoted in Ellis, 1985:111) found that "intelligence was strongly related to the development of academic L2 French language skills (reading, grammar, and vocabulary), but was in the main unrelated to ratings of oral productive skills by native speakers." Ekstrand (1977, according to Ellis, 1985) found high correlation while measuring proficiency on tests of reading comprehension, dictation and free writing. There are some authors who express their opinions on intelligence in connection with learning in much more general terms. Barton, Dielman and Cattel (1972) (as quoted in AbiSamra, 2000) declare that IQ together with the personality factor predict achievement in all areas. Nevertheless, there are some psycholinguists who declare that intelligence and language do not necessarily demonstrate any positive relationship. Pinker (in press) states that individuals with catastrophic losses in language do not always perform badly at other aspects of intelligence, such as those measured on the nonverbal parts of IQ tests. He also says that

there are syndromes showing opposite dissociation, where intact language coexists with severe retardation. “These cases show that language development does not depend on fully functioning general intelligence” (Pinker, in press: 4). According to Gorzelanczyk et al. (1998), in their study, the authors have been looking for correlates between the parameters of the learning process and various components of intelligence. Their results surprisingly show that “no significant correlates have been found” Gorzelanczyk et al. (1998:2). They also state that memory-related components of intelligence do not play a visibly more significant role in the learning process than other components. Some authors even add to the unclearness of the matter, as Spoerl (1939), according to her study using tests, proclaims that significant correlations between language learning and intelligence have been found for women; however, none for man. She, thus, suggests there is a presence of diverse factors. The fact that her results were reached quite a long time ago and, therefore, could have been influenced by the then differentiation in social position and status of males and females must be taken into consideration.

The above controversial findings prompted the idea to carry out research with the intention of finding out whether there is a relationship between English grammar acquisition and the level of cognitive processes in Slovak learners. Before the actual research is presented, the most important notions in the area of intelligence are discussed in the forthcoming chapter.