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APTITUDE IN 'SLA'

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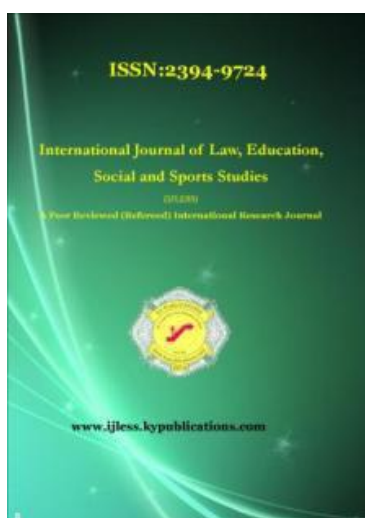
ABSTRACT

'How is it that some people can learn a second or foreign language so easily and so well while others, given what seem to be the same opportunities to learn, find it almost impossible?' (Gardner & Lambert 1972: 131). This question has triggered much research in the field of individual differences and language learning. It is undeniably true that all learners can learn a second language; however, the rate and ease of learning is a different story. There has been a raise of interest in identifying individual differences in second/foreign language learning (Fillmore, Kempler & Wang, 1979; Diller, 1981; Ellis, 1985; Skehan, 1989; Parry & Stransfield, 1990; Larsen-Freeman & Long, 1991; Lightbown & Spada, 2003). The common consensus is that individual differences have direct impact on second language acquisition or success.

Keywords: second language, cognitive, aptitude.



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1. The role of individual learners differences in second language acquisition

Individual differences are broadly divided into cognitive and affective variables. The cognitive variables form, to use Johnson's words, 'the mental makeup of a person' (Johnson, 2001: 117) and include language learning aptitude, intelligence, age, learning strategies, and learning / cognitive styles.

The affective variables form 'the emotional side of human behaviour' (Brown, 1994: 135) and include personality factors like anxiety, extroversion/introversion, inhibition, risk-taking, empathy, self-esteem and motivation.

1.1. Cognitive variables and second language acquisition

There has been significant research on the quest for the most predictive factors of second language learning success. Cognitive variables seem to play a vital role on this.

Foreign language learning aptitude refers to the ability to learn foreign languages at a fast and easy rate. According to Carroll (1981) everyone can acquire a foreign language. However, for each learner there is a difference in the rate, the amount of time and the ease of acquisition because learners do not possess all these components of aptitude to the same degree (Lightbown and Spada, 2003).

Kiss & Nikolov (2005) have studied how aptitude scores relate to learners' performances in proficiency, motivation, gender, school achievements, and grades in English. The results indicate that the variable of language aptitude proves to be the best predictor of foreign learning success.



Intelligence refers to “capacity rather than contents of mind” (McDonough 1981, p. 126). It has mainly been associated with performance on IQ tests (Lightbown & Spada, 2003). High scores on IQ tests were good indicators of children’s success in language learning. This view however has been criticised, as IQ tests did not measure the various abilities and strengths of individuals (Gardner 1993). His Multiple Intelligences theory made it obvious that intelligence is complex, and as learners have many kinds of abilities, traditional IQ tests are not suitable to measure all of these abilities.

Furthermore, According to Lightbown and Spada (1999: 53), while intelligence may be a strong factor when it comes to learning which involves language analysis and rule learning, it may play a less important role in classrooms where the instruction focuses more on communication and interaction.

Learning style is ‘the learner’s preferred mode of dealing with new information (Oxford 1990:68). Reid (1995) defines learning styles as a term used to describe an individual’s natural, habitual, and preferred way of absorbing, processing, and retaining new information and skills. Teachers should always consider the group to which their learners belong and treat visual, kinaesthetic or aural learners respectively. At the same time they should keep in mind that only one particular teaching method or textbook cannot possibly suit the needs of all learners.

Motivation includes energy, willingness to learn, perseverance, interest, enjoyment of lessons, incentives and benefits of knowing the language (McDonough 1981:149). There have been numerous studies that show that motivation is a key to learning (Brown, 1994a; Ellis, 1994; Dornyei, 2001a). Dornyei (2001:5-6) claims that learners with sufficient motivation can achieve working knowledge of an L2, regardless of their language aptitude or other cognitive characteristics. He claims that without sufficient motivation, even the brightest learners are unlikely to persist long enough to attain any really useful language.

There are two types of motivation that are thought to impact on success in second language learning, namely integrative and instrumental motivation. Learners are integratively motivated when they desire to identify with another ethno-linguistic group, its culture, language and people so as to ‘integrate’ more within the target language society (Johnson 2001:129). Learners are instrumentally motivated when the learning of a foreign language pertains to utilitarian purposes such as furthering a career, improving social status or meeting an educational requirement (Larsen-Freeman & Long 1991:173).

According to Oxford (1990, p. 1) “*strategies* are especially important for language learning because they are tools for active, self-directed involvement, which is essential for developing communicative competence”.

Schmitt (2000:135/136) distinguishes the determination strategies (guessing from structural knowledge of a language), social strategies, (consolidate vocabulary knowledge with other people), memory strategies (mnemonics, involve relating the word with previous learned knowledge), cognitive strategies (repetition, vocabulary notebooks, using mechanical means to study vocabulary), meta-cognitive strategies (conscious overview of the learning process, improving access to input, testing, deciding on the most efficient methods to study). Learners’ actions to improve their own learning are known as learning strategies and usually reflect the learner’s style (Oxford 1990:68).

Age seems to affect second language acquisition as well. According to the Critical period Hypothesis, the first ten years of a child’s life are the optimal period for natural and effortless language acquisition (Ellis, 1985), because up to adolescence the two hemispheres have not yet reached the lateralization or specialization of function, which is a characteristic of the adult brain. It is claimed that people beyond this period find it hard to acquire a second language with native like pronunciation (Brown, 1994a). CPH encourages children’s early language learning although other factors such as language background might well influence results.



1.2. Affective variables and second language acquisition

Lightbown and Spada (1999: 55) claim that the available research does not show a clearly defined relationship between personality traits and second language acquisition; this relationship is a complex one but it is the way in which it combines with other factors that contributes to second language learning.

Extroversion facilitates the development of oral skills (Brown, 1994a; Stern, 1983), as learners are involved in interaction, whereas *introversion* facilitates the systematic study of the language, as learners devote time to work out the rules of the language.

However, Lalonde and Gardner's (1985) study failed to find a significant correlation between social participation and indices of second language achievement (all cited in Gardner 1990:187). Naiman et al (1975) report that both *introversion* and *extroversion* are regarded by the teachers, as characteristics of successful students. Kawczynski (1951) claims that the nature of the language course would determine whether extraverted students outperformed introverted or vice versa.

Anxiety is another trait which affects SLA. It occurs when learners think that the activity is difficult for them and they do not feel confident about their abilities. They have doubts about whether they will succeed.

Gardner showed that measures of anxiety involving the learning of a foreign language correlate negatively with measures of foreign language achievement. As foreign language increases, anxiety decreases. Researchers have reported that foreign language anxiety interferes with language learning because it reduces the ability to concentrate on the target language and is likely to impede memory proficiency (MacIntyre and Gardner 1991, 1994 cited in Sparks and Ganschow 2001:96).

Inhibition is a set of defenses a person builds (Brown, 1994a) in order to protect the ego from situations that threaten self-esteem. As a result, inhibition discourages risk taking (Ellis, 1985; Lightbown & Spada, 2003), which is an important characteristic of successful language learners.

Risk taking is a personal trait necessary for successful foreign language learning (Brown, 1994a) because it enables learners to experiment with the language and make guesses without being afraid of making mistakes.

Empathy is the key for successful communication (Brown, 1994a). It is the ability to put yourself to another person's place so that you understand other people's cognitive and affective states. In this way, you can both receive and send messages clearly, as the danger of misunderstanding, which results in a breakdown of communication, is eliminated.

Self-esteem is very important in SLA, as it influences all the variables mentioned earlier. Learners who believe in themselves and have confidence in their abilities are more willing to take risks and experiment with the language.

This was a review of individual differences and their role on SLA. It is important in this discussion to mention that as in the first language: 'individual differences might reflect something like cognitive styles, matters of performance variability but not competence' (Nelson 1981:172).

2. Aptitude

2.1. Defining aptitude

Language learning aptitude is a subject that has received intermittent attention from researchers for about 100 years. Aptitude implies an individual difference in language learning and refers to the natural ability to acquire language at a fast and easy rate. It is a common place that all people can learn languages, yet not everyone learns a foreign language at the same speed. Moreover, aptitude is an innate predisposition to be able to learn a language well without the need of motivation or other environmental factors (McDonough 1981).

Sasaki (1996:9) defines aptitude as a 'set of cognitive abilities related to both foreign language learning success and to the process itself' while Sternberg defines aptitude as 'sources of individual differences in intelligent behaviour' (Sternberg 1984:281 cited in Sasaki 1992:8).

The concept of language learning aptitude has gained many opponents as well as adherents. Neufeld (1974) argues against aptitude as he believes that all people can learn a second language but 'he is missing the point that aptitude is intended to explain differences in achievement rather than the fact of learning' (Spolsky 1989:105). Valette and other linguists claim that 'were language teachers to expect all students to master a second language, we might well experience great success' (Valette 1971:69). This idea surely does not conflict with the theory of aptitude at all; all learners will certainly do better under these circumstances than under conditions of anticipated failure. But even in ideal learning circumstances, some learners do better than others. It is certainly in the interests of all concerned that this variation is understood.

2.2. Components of aptitude and aptitude tests

The first attempts of developing aptitude tests start in 1920's and 1930's when linguists like Vander Beke (1925), Luria and Orleans (1928) and Hunt et al (1929) developed 'prognosis' tests (all cited in Sparks and Ganschow 2001). They were devised to determine good performance in foreign language learning situations and to discover benefits from foreign language instruction. Some time later, Symonds (1930) argued that there were three types of aptitude, namely ability in native language, general intelligence and 'quick learning tests in the new language' and much later, Kaulfers (1939) related aptitude to IQ and performance (cited in Sparks and Ganschow 2001:91).

After the Second World War better testing methods were wanted, possibly because the earlier tests tested for a more traditional idea of what a language consisted of, which then was the translation and reading of texts in classical languages. Learning modern foreign languages for communication became the vogue and so there was a need for a different type of aptitude test.

In 1958 Carroll and Sapon introduced a series of aptitude tests, known as MLAT (Modern Language Aptitude Test). These tests assume that language learning is seen as taking place explicitly in an academic environment, in schools and generally more formal settings. For 50 years, the Modern Language Aptitude Test has been used as a standard aptitude test aimed at adult learners. One of the important innovations, which this test introduced, was the idea that aptitude consisted of a number of general cognitive characteristics. These characteristics are phonetic coding ability, grammatical sensitivity, rote learning ability and inductive language learning ability.

Phonetic coding ability refers to some auditory alertness and is defined as 'the ability to identify and store in long term memory, new language sounds and strings of sounds' (Carroll 1971:4, cited in Parry and Child 1990:33).

Grammatical sensitivity is the ability to recognize the grammatical functions of words (or other linguistic entities) in sentence structures (Sasaki 1996:8). Grammatical sensitivity is alleged to be an important predictor of learning success. It is concerned with the 'individual's ability to demonstrate an awareness of the syntactic patterning of sentences in a language and of the grammatical functions of individual elements in a sentence' (Carroll 1971:5 cited in Parry and Child 1990:33).

Rote learning ability for foreign language materials is 'the ability of an individual to learn a large number of semantic-symbol and/or sound-symbol associations in relatively short period of time' (Parry and Child 1990:33). It is obvious that this would immensely help vocabulary learning.

Inductive language learning ability is defined as 'the ability to infer linguistic forms, rules, and patterns from new linguistic content itself with a minimum of supervision or guidance' (Carroll 1966 cited in Parry and Child 1990:34). In other words, it is the ability to infer or induce the rules governing a set of language materials, given samples of language materials that permit such inferences (Carroll 1962 cited in Carroll 1981:105).

A version for younger learners, MLAT-E (Modern Language Aptitude Test-Elementary) for learners aged 8 to 10 was also produced in 1967 but did not appear to enjoy the same prominence as the adult version. Later, Pimsleur (1966) developed a new battery of tests, the PLAB (Pimsleur Language Aptitude Battery) where he attempted to discover the relationship between aptitude and IQ-a quite different approach to Carroll and



Sapon who concluded this connection did not exist. Years later, Esser and Kossling (1986), took a cognitive approach in aptitude testing, performed a study with students and yielded very interesting results. Finally, Meara, Milton and Lorenzo-Dus devised LAT (Language Aptitude Tests), an updated and computerized set of aptitude test that is commercially available and has proved to predict well (Meara et al 2001).

Skehan has offered much insight into foreign language learning aptitude in the recent years. His basic claim is that aptitude has a componential structure and that 'it is more appropriate to think of aptitude profiles, conveying the idea that rather than think of individual learners as more or less talented, one should think of them as having strengths and weaknesses' (Skehan 1998:5). Profiles rally for a re-conceptualisation of aptitude in information-processing terms so current models of intellectual functioning can be related to concepts of aptitude (Skehan 2002: abstract).

The three stages of the process are input, central processing and output. According to Skehan's updated theory of aptitude, it consists of three major components: auditory, linguistic and memory ability. The auditory ability is identical to Carroll's phonemic coding ability. The linguistic ability combines inductive and grammatical sensitivity as he thinks that they are strongly related and come within the linguistic abilities heading. The memory ability involves the learner's capacity to absorb new material and the ability to retrieve efficiently from this memory system during language processing. The memory system is regarded as simply associative, as it was in Carroll's earlier test form (Skehan 1992:155). Hence, phonemic coding ability is a component that facilitates input, linguistic ability is involved with central processing whereas memory aids output. Skehan is careful to state that Sasaki's (1991) results implying that aptitude is best situated within cognitive abilities is only achieved at the cost of accepting weak involvement for measures of memory and phonemic coding ability. Similarly, Wesche et al (1982) have shown that cognitive aspects of aptitude have connection with general cognitive abilities but this is less valid for memory and phonetic coding (Skehan 1992:157).

2.3 Assumptions for aptitude

There are several interesting assumptions about the issue of aptitude. First, that language learning aptitude is a special skill that is separate from other skills. It may, apparently, be different from intelligence or IQ or any other special skill. Wesche et al's (1982) results lend credence to the hypothesis that 'aptitude and intelligence share a more abstract level of general cognitive ability' (Sasaki 1996:24). Results support Bachman's hypothesis (1990) that general factor of SLP (Second Language Proficiency) is related but not identical to general cognitive abilities. The results 'disconfirm the strong version of Oller's (1981, 1983a, 1983b, 1983c) hypothesis that general language ability is the essence of general intelligence or general cognitive abilities' (Sasaki 1996:135). It was interestingly argued that:

...foreign language aptitude is not exactly the same as 'intelligence' not even 'verbal intelligence' for foreign language aptitude measures do not share the same patterns of correlations with foreign language achievement as intelligence and academic ability measures have; yet there is an overlap between their factors and components (Carroll 1981:86).

The particular contribution which Carroll and Sapon introduced to the field with MLAT was that this special skill is comprised of several clearly identifiable sub-elements or sub-skills, which combine to create aptitude although they do not link these abilities with general cognitive abilities. Even where researchers can demonstrate a close correlation between other abilities and language learning success, as in Pimsleur's work with IQ scores, (1968), language learning still appears to be viewed as a distinct and separate ability. At least part of this view must be based on the results of Carroll and Sapon's (1958) where *MLAT* and IQ scores are compared. Unlike other studies, they find no significant correlation.

Second, as Carroll points out (1981:85), aptitude is an innate language learning skill. It is a "gift", or what is often called in English an "ear" for languages. The idea is that people either have this quality or they do not, it is innate. Carroll states (1981:86), that there is no hard evidence that foreign language is dependent upon past



experiences, and suggests that foreign language learning ability 'is relatively fixed over long periods of an individual's life span, and relatively hard to modify in any significant way'.

Third, that language learning aptitude is not language specific; it indicates a learner's capacity to do well in learning any language. It is a skill that is not influenced by the language background of the learner or the language, which is being learned. Hence, a learner with high aptitude will do better at learning any language than a learner who has low aptitude, all other things being equal.

CONCLUSION

There is no single best method but it is the amalgam of specific method types with specific aptitude profiles, which creates optimal learning conditions (Wesche 1981). Skehan argues that aptitude research should not 'remain at an unrevealing, monolithic level but that profile based info could be vital for the design of effective interventionist techniques' (Skehan 1998:199). The analysis of aptitude and cognitive styles suggest that a profile approach to characterise learners is more productive, as the number of profiles is relatively small and the adaptations of instructional approaches feasible.

Besides, Wesche (1981:119/120) verifies that 'there is indisputable evidence linking performance on language aptitude tests with classroom achievement in a new language' therefore, its impact would be too important to ignore.

Consequently, 'matching Ss language aptitude profiles with particular methodological approaches might ameliorate the negative consequences of working with groups of Ss with heterogeneous aptitude profiles' (Larsen-Freeman and Long 1991:207/208).

It becomes evident that individual differences do 'make a difference' in language learning. Language is not a unitary thing, it is a multi-factored process and knowing the learners' individual differences is imperative for the teacher as it shows respect for the learner (and his/her uniqueness) and the process of learning in general.

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