Editorial

Teachers have known for a long time that language learners differ and that a one-size-fits-all does not exist. Still in the days of structuralism, language and its users were seen as being a "thing" to be learned and taught, and since the goal of the learning was the same for all learners—proficiency in the language—the road to that goal should be uniform as well. Language was seen as a set of structures that had to be mastered, and this led to the audio-lingual method in which learners had to drill patterns and make no mistakes, since mistakes could be engrained as good as correct patterns. It was argued that the audiolingual method allowed for individual variation, since learners could choose their own goals and repeat parts of the curriculum on their own.

It may be seen as a somewhat unusual perspective, but the mentalist stream that was initiated by Zellig Harris and Noam Chomsky paved the path for an approach in which the focus was on possible patterns rather than a limited set by not providing fixed patterns but emphasizing the creative possibilities of language and its development. Learners were assumed to be endowed with a general and universal grammar that allowed them to acquire any language. What the universal grammar actually consisted of was less clear. Also, the generative movement refrained from making too strong claims about how a language should be taught, so the theory did not restrict the options for individual learners. Dell Hymes in 1966 introduced the term *communicative competence* in reaction to Chomsky's competence/performance distinction that seemed to exclude any role of social factors in language learning and use.

Parallel to this more or less cognitive view of language learning, the interest moved from a focus on the language a la structuralism to a focus on the learner. In the communicative approach that emerged, language structures only existed as part of a communicative setting, which by definition is social and individualized. Language was used to convey communicative intentions and did not exist by itself. In their ground-breaking article on communicative competence in

language teaching, Canale and Swain (1980) argued for different types of competence: grammatical, sociolinguistic, discourse and strategic. So structural aspects were seen as only a part of the larger concept of competence. This implies attention to the individual learner.

Traditionally the main sources of individual differences were attitude/motivation, language aptitude, age and learning styles (Van Els, Bongaerts, Extra, Van Os, & Janssen-Van Dieten, 1984). For motivation, the work of Gardner has been very influential. His attitude/motivation test battery that was originally developed for the French-Canadian context has been applied widely. In the last decade, the role of a leading motivation theorist has been taken over by Dörnyei, who developed a new framework based on personality psychology in which the individual's selves play a crucial role. Language aptitude has had an interesting history, beginning with the early work by Carroll and Sapon in the 1960s who developed the Modern Language Aptitude Test (MLAT). The aim was, according to the authors, "the prediction of how well, relative to other individuals, an individual can learn a foreign language in a given amount of time and under given conditions" (Carroll & Sapon, 1959, p. 16). A similar test but with a wider age range was the Pimsleur Language Aptitude Test. Both tests consist of subtests for working memory, pattern recognition and phonetic discrimination ability. Aptitude tests are fairly good in predicting success in language learning. One of the remaining questions is to what extent aptitude can be defined and measured independently of general intelligence.

Interestingly, the MLAT has no component on motivation, while this is generally agreed to be a crucial factor. More recently Meara (2005) developed his Llama test, an online aptitude test that includes the components used by Carroll/Sapon and Pimsleur. Another issue with aptitude tests is whether they are stable over the lifespan. The work on dynamic systems theory has cast doubt on Carroll's assumption that it is relatively stable (see also Singleton's contribution to this volume). But some components, such as rote learning and auditory discrimination are trainable and thus not necessarily stable.

The study of individual differences has also undergone a fundamental change recently. The traditional motivation and attitude studies used questionnaires as the main method, while in more recent studies a wide range of procedures and data are used. A good example is MacIntyre's (this volume) work on the relation between attitudes and tasks as measured by continuous real time physical reactions, such as heart rate, skin resistance, pupil dilatation and cortisol production. There is very little research on this topic, unfortunately. In group studies, differences between individuals are often seen as noise that lowers the effects found. As the papers in the volume edited by Dörnyei, MacIntyre, and Henry (2015) show, noise in data is no longer seen as a nuisance, but as a valuable

source of information. From a dynamic perspective many variables play a role and since they interact over time, the development is only partly predictable.

While questionnaires continue to be a widely used data collection method, other methods, including various types of neuro-imaging data have been employed. In particular for the role of emotions, brain imaging may provide clues about the structure and workings of the emotional brain.

Age as a factor in individual differences has a long history and a full treatment is beyond the scope of this introduction. For an overview see Aronin and Singleton (2010). In fact, the interest in age has been limited to the first decades of life with only recently a growing interest in language and ageing. There is a tendency to see "the elderly" as a group with specific characteristics such as bad memory and cognitive and physical decline. The suggestion of the existence of the elderly as a group is basically wrong. The variation between individuals is at least as large as in the larger population. Being old is not a grouping factor, nor is age-related decline necessarily a problem when it comes to bilingualism and language learning. Of course, in teaching languages to elderly students some of their shared characteristics have to be taken into account: Weaker memory, slowing down of cognitive processes and reduced auditory and visual acuity are relevant factors that should inform language teachers' decisions about what can be done in class and beyond.

In recent years the interest in the role of affective variables has grown through the work of Deweale and various others. It is linked to interest in positive psychology (MacIntyre, Gregersen, & Mercer, 2016). The most important message from that research is that in our research we should not purely focus on what goes wrong and leads to negative feelings, but also on more positive aspects. Emotions have not played a role in second language development (SLD) until recently. They were seen as irrelevant personal issues that should not murk our view of cognitive processes that for a long time were the focus of research in SLD. Cognition is now seen as inseparable from emotions (Swain, 2013).

The contributions to this volume do not cover all aspects of individual differences. There are also new additions, such as the one on circadian rhythm by de Bot and Fang, which is based on research in chronobiology, the branch of biology that looks at physical and psychological factors in the distribution of processes over the day. While there is extensive research on day/light rhythms as it affects human behavior and pathology, there is hardly any research on humans and nothing at all on humans learning and using language. In their article, de Bot and Fang report on a number of experiments in which the question to what extent early types (larks) and late types (owls) perform certain tasks better or worse depending on the time of the day was tested. Their findings are mixed, and no clear effect of chronotype has been found. This is partly due to the lack of variance in the timing of their sleeping habits.

Yinxing, de Bot, and Keijzer present a study on learner anxiety in Chinese learners of English and Japanese. The study focused on two factors: student cohesiveness, defined as "a second factor contributing to classroom environment is student cohesiveness, which has been conceived of as 'the friendship students feel for each other, as expressed by getting to know each other, helping each other work with homework, and enjoying working together (Trickett & Moos, 2002, p. 1)'" and teacher support "defined as 'the help and friendship the teacher shows toward students; how much the teacher talks openly with students, trusts them, and is interested in their ideas (Trickett & Moos, 2002, p. 1).'" The data show that teacher support, which was positively related to student cohesiveness and negatively to FL anxiety, did not show a direct relationship with FL proficiency. FL anxiety, which was negatively associated with FL proficiency, showed a better predictive power than student cohesiveness and teacher support.

There are two papers in which age is the core issue. Pfenninger reports on a series of studies on the effects of age of onset of language learning. Results of multilevel analyses indicate that macro-contextual factors (i.e., the wider school context) have a mediating effect on the relation between age of onset and L2 proficiency increase, exerting both positive and negative influences and thus suggesting that age of onset effects are malleable, which is what one would expect if we are dealing with an individual difference variable. She claims that "an ID model that assumes that age is a 'fixed factor' as suggested by Ellis (1994, p. 35) is not entirely satisfactory."

An approach to individual differences based on complex dynamic systems theory is presented by Lowie, van Dijk, Chan, and Verspoor. They present data from a year long study of writing in English by two identical twins in Taiwan. The data show that even for identical twins, with the same genetic profile and similar situations of learning and use, substantial differences in the individual developmental paths emerge. The interaction between variables over time leads to these differences.

MacIntyre and Vincze tested ten positive emotions (joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love) and nine negative emotions (anger, contempt, disgust, embarrassment, guilt, hate, sadness, feeling scared, and being stressed) against existing theories of individual differences and SLA. On the basis of a large scale project in South Tyrol in Italy, they conclude that a variety of emotions, not just one or two key ones, are implicated in L2 motivation processes in a high-contact context.

Singleton discusses the stability of language aptitude as fixed trait. He traces the history of aptitude as an individual difference in the light of recent work on stability of traits that shows that other factors, such as intelligence, which also were regarded as stable, are in fact malleable and sensitive to training.

Bátyi looks at the role of attitudes in the development of Russian as a foreign language. The core issue is to what extent positive or negative attitudes, as they may have developed in the case of Russian in Hungary, play a role in the learning or unlearning of language skills in that language. Using a mix-method set up with quantitative data in combination with first person accounts, she concludes that attitudes may have played a role in acquisition but that it is not clear whether these findings reflect attrition or non-acquisition, since no data on proficiency before a period of non-use are available.

The contributions to this special issue show the changes in perspective on individual differences as fixed and stable characteristics of learners to one in which essentially none of them is completely stable. All of them dynamically interact with their environment. This is a perspective that will change the panorama of research on individual differences substantially.

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References

Aronin, L., & Singleton, D. (2010). *Multilingualism*. Amsterdam: John Benjamins.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1*, 1-47.

Carroll, J. B., & Sapon, S.M. (1959). *Modern Language Aptitude Test*. San Antonio, TX: The Psychological Corporation.

Dörnyei, Z., MacIntyre, P., & Henry, A. (Eds.). (2015). *Motivational dynamics in language learning*. Bristol: Multilingual Matters.

MacIntyre, P., Gregersen, T., & Mercer, S. (Eds.). (2016). *Positive psychology in SLA.* Bristol: Multilingual Matters.

Meara, P. (2005*). LLAMA language aptitude tests: The manual*. Swansea: Lognostics.

Mercer, S., & MacIntyre, P. (2015). Introducing positive psychology to SLA.

Swain, M. (2013). The inseparability of cognition and emotion in second language learning. *Language Teaching, 33,* 195-207.

Van Els, T., Bongaerts, T., Extra, G., Van Os, C., & Janssen-Van Dieten, A. (1984). *The learning and teaching of modern languages*. London: Edward Arnold.