Second language acquisition: a multifaceted process in permanent search of valid and reliable findings

1. SECOND LANGUAGE ACQUISITION AS A COMPLEX, MULTIFACETED PROCESS

It is not original to say that Second Language Acquisition (SLA)[1] is a complex object of research. Different authors (Abraham 1985: 700; Chapelle & Roberts 1896: 44; R. Ellis 1994: 11, 15; Gunter 1996: 3; Mitchell & Myles 2004: 6) state that SLA is a complex process. Moreover, we very often read that much more research needs to be done in the different areas of SLA studies and that any findings are to be interpreted with caution (Abraham 1985: 700; Chapelle & Roberts 1986: 28; Schmidt 1990: 149; R. Ellis 1994: 211; Bailey *et al.* 2000: 119; Ehrman *et al.* 2003: 324; Mitchell & Myles 2004: 2).

Different approaches to SLA, from descriptive to those devoted to the explanation of SLA based on external and internal factors, among other things (see R. Ellis 1994: 16), have contributed to the idea that SLA is a "complex, multifaceted phenomenon" (R. Ellis 1994: 15) which "draw[s] on and contribut[es] to a number of distinct disciplines – linguistics, cognitive psychology, psycholinguistics, sociolinguistics, and education." (R. Ellis 1994: 9). SLA research is, therefore, not only concerned with description and explanation as ways of approaching second language, but also with focusing on learning or on the learner (see R. Ellis 1994: 18).

This makes SLA an intriguing topic, deserving the attention of scholars from different areas and requiring a serious discussion when findings are reached. This multifaceted approach also helps to challenge some myths and

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[1] As for the terms SLA and Second Language Learning (SLL), see R. Ellis (1994: 6, 14), and Mitchell & Myles (2004: 6), as well as point 2 of this text. Following R. Ellis (1994), SLA will be mainly used in this text. SLL will be used either to respect the references or in virtue of the topic under discussion.

misconceptions about second language learning[2] (see McLaughling 1992; Gunter 1996), even in later life learning (see Withnall 2005: 96). Therefore, if any two learners are not equal[3], we have to admit that different ages[4] may contribute to even more heterogeneous individual profiles. However, to be aware of the individual differences and of the interaction of the variables involved in (foreign language) learning (see, for example, Bailey *et al.* 2000) may lead us to agree with Ehrman *et al.* (2003) that "[t]he more we learn about individual differences, the more complex the field becomes", and that "what we thought were unitary characteristics, like language aptitude […], are really ambiguous composites of multiple factors." (Ehrman *et al.* 2003: 325). The authors also add that "[w]hat is universal and what is individual is, indeed, a challenging mystery to unravel." (Ehrman *et al.* 2003: 325).

We could suggest that second/foreign language acquisition/learning process is an individual experience which, like the act of teaching (see Mitchell & Myles, 2004: 261), owes as much to art as to science. Each learner, by virtue of his/her particular learning style, learning strategy, linguistic and cognitive skills and motivation, may resist trends which may be considered more suitable[5]. This observation appears to be at the same time challenging and deceiving, but it helps to highlight, following Bailey *et al.*'s (2000: 129) line

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[2]   At this point, possible bilingual situations are excluded (see Mitchell & Myles 2004: 5).Thus, it is expected that L1 acquisition has taken place before L2 learning. As for different understandings of "bilingualism", including the one which considers it as a continuum, see Grosjean (1992: 58), and Paradis (2004: 2-3). Bloomfield's (1935: 54) comment "[t]o the extent that the learner can communicate, he may be ranked as a *foreign speaker* of a language" should not be forgotten.

[3]   Mitchell & Myles' (2004: 261) idea that "teaching is an art as well as a science […] because of the constantly varying nature of the classroom as a learning community" deserves to be highlighted now.

[4]   For an overview on second language and the critical period hypothesis, see Birdsong (Ed., 1999), and on age constraints on first *versus* second language acquisition, see Mayberry & Lock (2003).

[5]   Regarding "formal instruction" and "exposure" to language in natural contexts, see Seliger (1977: 275), Foth & Dewaele (2002), and Schmidt (1990). As for "exposure", Seliger (1977: 275) refers to it as a neutral term and states that to be exposed to language is not the same thing as being exposed to a virus, i.e., "[o]ne doesn't catch it automatically" (Seliger 1977: 275). This topic also leads us to the distinction between "input" and "intake" (see Seliger 1977: 275; Schmidt 1990: 139 ff.; Foth & Dewaele 2002: 176, 182, 183). As for the controversial consensus on "intake", see Schmidt (1990: 139).

of thinking, that the relationship between learning styles[6] and other variables may enable "a deeper understanding of the bases of individual differences in foreign language proficiency."

2. ON THE TERMS "ACQUISITION" AND "LEARNING"

Though the terms "acquisition" and "learning" may be used interchangeably in a SL context (see R. Ellis 1994: 6, 14; Mitchell & Myles 2004: 6; for a critical view on this topic, see Zobl 1995[7]), the terms require a closer look because they are not totally synonymous[8] (see Krashen (1977a) and (1977b), referred to by Zobl (1995: 35), and Krashen (1981: 101 ff.), for a second language teaching program with two main components: acquisition and learning). In Zobl's (1995: 35) words, "'[a]cquisition' operates incidentally to processing for comprehension and results in implicit, intuitive knowledge; 'learning' relies on memorization and problem-solving and leads to explicit, conscious knowledge about the L2.". When Zobl (1995) discusses Krashen's theory, he suggests that it "deserves a more sympathetic assessment" (Zobl 1995: 51). Based on Krashen's theory, Zobl calls our attention to two systems aimed at internalizing and representing L2 knowledge (Zobl 1995: 35), to "the different nature of the processing power inherent in the two cognitive systems" (Zobl 1995: 50), to "the manner of internalization of ["acquired" vs. "learned"] linguistic knowledge", and to "the representation of that knowledge (implicit linguistic knowledge vs. explicit/encyclopaedic knowledge)" Zobl (1995: 38). Furthermore, regarding the computational power of "the language-specific module" vs. the "learning" module, Zobl (1995: 38) adds, based on literature, that "only the language module possesses the computational power to derive abstract representations from primary data". Indeed, this appears to agree with Krashen when he refers

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[6]   As Wyss (2002: 1) states based upon Keefe (1979), "learning styles" will correspond to cognitive styles when related to an educational context. With regard to "cognitive style" seen as a "link", it would mean that "[t]he way we learn things in general and the particular approach we adopt when dealing with problems is said to depend on a somewhat mysterious link between personality and cognition." (Wyss 2002: 1). For more details on cognitive styles and individual language learning, as well as on a "new approach" to this topic, see Ehrman & Leaver (2003).

[7]   The theoretical scope and implications of Zobl's (1995) article played a crucial role when choosing how to present Krashen's theory and justify this bibliographical option.

[8]   SLA would correspond to a sociolinguistic approach, whereas SLL would correspond to a mentalist one (Michonska-Stadnik 2006).

to "the compartmentalization of the two systems and the inability of 'learning' to deal with the complexity of language" (Zobl 1995: 38)[9].

Krashen believes there is no interface between implicit and explicit knowledge. For him, explicit knowledge is only "an output control device [...] not involved in language acquisition" (Foth & Dewaele 2002: 177). Put another way, the non-interface position may admit that "«metalingual rules can be learned for purposes of editing or self-correction […] but they do not help acquisition» (N. Ellis 1994: 4)." (Foth & Dewaele 2002: 176)[10]. In parallel, two other positions should be mentioned: the strong interface one (see Anderson (1983), referred to by Foth & Dewaele 2002: 177), which "believes that explicit knowledge is actually converted into implicit knowledge, and may even necessarily precede it [...]"; and the weak interface position (see N. Ellis (1994: 4), referred to by Foth & Dewaele 2002: 177), which "«allows some 'seepage' from explicit metalinguistic to implicit knowledge»".

The fact that learning leads to conscious knowledge about the L2 reminds us of Schmidt's (1990) article on the role of consciousness in SLL[11]. The author states that more research is necessary to see "what learners are conscious of as they learn second languages." (Schmidt 1990: 149)[12].

3. ON THE TERMS "SECOND" AND "FOREIGN"

The difference between "second" and "foreign" language learning has become less popular since the late 1980s (see Foth & Dewaele 2002: 179; Kramsch 2002: 1; and, with regard to the inclusion of "foreign" languages under the general term "second" languages, see Mitchell & Myles 2004: 6). To

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[9]   Three points related to this topic should me highlighted: uniformity vs. heterogeneity of outcome, forgetting, and non-effects of metalinguistic information. For more details, see Zobl (1995: 42, 45, 46-48).

[10] On the role of classroom in language acquisition, see Krashen (1981: 47, 101, 115-116) – mainly when Krashen (1981: 116) points out the importance of the amount of intake in terms of acquisition occurrence or "sufferance" –, as well as Felder & Henriques (1995: 27).

[11] In effect, Schmidt (1990: 131) adds that "[t]he approach taken [...] will be to assume that both conscious and unconscious processes are involved in second language learning, and to assess the contributions of each".

[12] The role of consciousness in SLL should therefore be taken with caution , as well as Krashen's theory, which, as Schmidt (1990: 129-130) asserts, "rests on a distinction between two independent processes, genuine learning, called 'acquisition', which is subconscious, and conscious 'learning', which is of little use in actual language production and comprehension. […]".

a certain extent, as R. Ellis (1994: 12) says, it was necessary to find a neutral and superordinate term to deal with this topic. Thus, SLA covers both kinds of *learning* (informal and formal –see Mitchell & Myles 2004: 6). Besides, the spread of the communicative language teaching methodology was also responsible for a certain blurring of the distinction between "second" and "foreign" language learning (see Foth & Dewaele 2002: 179; Kramsch 2002: 1). Nevertheless, the terms "second" and "foreign" as such must be taken into consideration.

It is interesting to note with Kramsch (2002: 1) that SL teaching was traditionally linked to social sciences and FL teaching to humanities. In addition, though SL research has been psycholinguistic and functional in nature and its focus was "on the development of communicative competence, taking as a model native speaker behavior" (Kramsch 2002: 2), FL research, on the other hand, has been humanistic and educational in nature and its focus was "on the development of linguistic and cognitive competencies, social and cultural awareness, moral and civic virtue, and critical literacy skills." (Kramsch 2002: 2). As the author adds, FL teaching has not taken its model from the native speaker, but from formal and academic registers.

Thus, the adoption of an expression such as "Second Language Acquisition/ Learning" (see R. Ellis (1994: 12), as well as Mitchell & Myles 2004: 6) has certainly to cover different L2 *learning* situations. For example, Cook's (2002: 1 ff.) approach regarding L2 users and L2 learners helps us to understand this topic better. Indeed, for Cook (2002: 2-3) "L2 users are not necessarily the same as L2 learners" (Cook 2002: 2)[13]. But, L2 users should not be considered "failures compared with native speakers" (Cook 2002: 9). L2 users are not "failures because they are different" (Cook 2002: 9)[14]. It seems therefore important to take into account this approach with regard to L2 users (see

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[13] According to Cook (2002: 2), language users exploit "whatever linguistic resources they have for real-life purposes". Language learners acquire "a system for later use" (Cook 2002: 2). As the author adds, "[t]he difference is that between decoding a message when the code is already known and codebreaking a message in order to find out an unknown code." (Cook 2002: 2-3). (See also Shehadeh 2004: 283.) For Cook (2002: 5), L2 users differ in general from native speakers of their L2, and, as the author adds, there is a general agreement that L2 users possess a different knowledge of the L2 (Cook 2002: 6). Furthermore, their knowledge of L1 is also to a certain extent different from that of monolinguals (Cook 2002: 7), and they also differ from monolinguals in terms of their minds, languages and experiences (see Cook 2002: 9; Shehadeh 2004: 283).

[14] SLA researchers, according to Shehadeh (2004: 283), "should explore what makes L2 users what they are".

Cook (Ed.) 2002) because it has relevant implications in terms of SLA research theories, linguistics and language teaching (Shehadeh 2004: 283-285)[15].

If the learning approach which allowed a certain blurring of the difference between "second" and "foreign" language learning was the communicative language teaching methodology, which, in Kramsch's (2002: 1) words, "spread […] in schooled language instruction", it should not be forgotten that this teaching approach has been criticized by humanists in terms of its intellectual rigour (Kramsch 2002: 3). Indeed, broader methods aimed at embracing "the totality of the language learning experience, and not just its social and functional dimensions" (Kramsch 2002: 18) are naturally required.

In this regard, Ehrman *et al.* (2003: 324) assert that communicative language teaching is "[t]he most recent, and still influential" language-teaching methodology. If learner differences are both old and new, "[l]anguage-teaching methodologies have [also] come and gone, each leaving traces in how we currently teach languages" (Ehrman *et al.* 2003: 323-324). Nobody knows what kind of teaching approach is going to come next. Certainly, an individualized programme open to different purposes, interests, strategies and styles would be a good candidate (Ehrman *et al.* 2003: 324). When Griffiths (2003) reports the "plus" (language learning) strategies, i.e, those preferentially used by higher level students besides those usually used by all students (Griffiths 2003: 367), she mentions "strategies relating to interaction with others", probably linked to the communicative language teaching movement (Griffiths 2003: 378). But, she adds that nowadays the importance of grammar for language learners has been rediscovered and its inclusion among the "plus" strategies stresses this interest (Griffiths 2003: 379).

4. INDIVIDUAL LEARNER DIFFERENCES

Language learning strategies (see, for example, R. Ellis 1994: 529 ff.; Mitchell & Myles 2004: 25-26) are concerned with "*specific actions consciously employed by the learner for the purpose of learning language*" (Griffiths 2003: 369). They are then related to a highly relevant aspect of learning, i.e, consciousness, which distinguishes strategies from other processes which are not strategic (see

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[15]   With regard to linguistics and concerning this approach, a multi-competence way of looking at language acquisition and learning should be the norm, rather than the mono-competence view. Besides, it is becoming less and less common to find pure monolinguals (Shehadeh 2004: 283).

Griffiths 2003: 369). Despite their difference in terms of intentionality and awareness (Bailey *et al.* 2000: 118), learning strategies may be compared with learning styles (as for learning styles, see R. Ellis 1994: 499 ff.). The former are "actions chosen by students that are intended to facilitate learning", while the latter "represent unintentional, or automatic individual characteristics" (Bailey *et al.* 2000: 118). Learning style profiles give us information about individuals'learning preferences (Bailey *et al.* 2000: 118); and "«learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, more transferable to new situations»". (Griffiths (2003: 368), quoting Oxford 1990: 8).

According to Chapelle (2004: 596), although teaching agents are aware of the fact that learners present different styles, the study of these individual differences in the realm of SLA has not been undertaken without theoretical and methodological difficulties. But, for Chapelle, "Skehan's reanalysis of L2 aptitude and learning styles" (Chapelle 2004: 596, referring to Skehan 1998) has helped the process to move on. More recently, research on Computer Assisted Language Learning has also shown "how specific aspects of the learning materials can be suited to the needs of individual learners." (Chapelle 2004: 596)[16]. In effect, nowadays we cannot ignore (second) language learning with multimedia and how students use them to compensate abilities as a result of their different individual profiles (Chun & Payne 2004; see also Kahtz & Kling 1999). Verbal and visual abilities, effects of cognitive load, and working memory capacity are some of the possible aspects linked to individual differences that may be expected to play a role in language learning with multimedia (Chun & Payne 2004: 482), as they certainly do in learning in general.

5. COGNITIVE *STYLES/PATTERNS* AND SECOND LANGUAGE LEARNING/ACQUISITION

As Hansen & Stansfield (1981: 350) state, "[c]ognitive style is a psychological term used to describe individual differences in the way one habitually tends to perceive, organize, analyze, or recall information and experience." For R.T. Pithers (2002: 117), it [cognitive style] "is said to be the relatively stable strategies, preferences and attitudes that determine an individual's '… typical modes of perceiving, remembering and problem-solving' (Messick, 1976, p. 5)."

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[16] See Summerville (1999), as for the role of awareness of cognitive styles in hypermedia.

Terms such as "pattern" and "type" instead of "style"[17] are other terminological possibilities (see, for example, Day 1977; 1979). Those who study language (processing) cannot be indifferent to this definition of cognitive style, because they are interested in the description and in the explanation of how individuals differ in the way they "habitually […] [tend] to perceive, organize, analyze, or recall information and experience" (Hansen & Stansfield 1981: 350) from the verbal perspective.

As a psycholinguist, I am fascinated that people do not experience the same difficulties when they learn a second language. Some people experience more success than others (see Chapelle & Roberts 1986: 27), others have problems learning to speak and understand foreign languages although they present a reasonable reading ability, and others still may be fluent when they speak, despite making grammatical errors (see Day 1977: 5D). A possible question is to what extent the same verbal competences/abilities are being used by those subjects. Are they in fact taking advantage of the same components of their verbal communicative potential?

Many factors are certainly involved, leading us to conclude that we are perhaps faced with different patterns (Day 1977; 1979) and to suggest with Day (1977: 5D) that different foreign language teaching methods may have more or less successful outcomes according to the various profiles (see Pinto 2007 a).

Griffiths & Sheen (1992: 140) state that "cognitive style literature is now looking decidedly dated and appears to have been superseded by an interest in, for example, theories of intellectual style […], and cognitive strategies […]". They even add that interest in dimensions of cognitive styles have decreased (Griffiths & Sheen 1992: 140). Griffiths and Sheen's arguments are easily understandable when we are aware of their position concerning the (cognitive style) dimension "that has attracted the most attention in SLA" (R. Ellis 1994: 37), i.e., field dependence/independence (FD/I) (see

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[17]   In this respect, Day states the following: "[t]wo basic patterns of data consistently emerge from these studies ["language-bound" (LBs) and "language-optional" (LOs)] [...]" (Day 1977: 5A); "[t]he term 'cognitive style' is not appropriate for describing the LB-LO distinction, since the word 'style' implies that the individual can decide to behave according to one pattern or the other at will." (Day 1977: 5C); "[i]t would be simplistic to claim that all of cognition is divided into only two basic 'types' " (Day 1977: 5C); "[i]f young children show the LB and LO patterns, it might be useful to use different methods to teach them to read" (Day 1977: 5D); and "[i] n fact, the existence of general patterns of cognition, such as those represented by the LB-LO distinction […]." (Day 1979: 81).

also R. Ellis 1994: 500 ff.). The authors may be right; however, FD/I cognitive style (dimension) continues to be a subject of study for vocational, as well as language and computer-assisted instruction purposes (Kahtz & Kling 1999; B. Pithers 2001; R. T. Pithers 2002; Fritz *et al.* 2002; Ehrman & Leaver 2003). Even if the different research findings in this domain should be taken with a certain caution, studies on (foreign) language using the FD/I dimension (i.e., in B. Pithers' (2001: 47) words, "*a major dimension of cognitive or information processing style*") as a background information must not be ignored[18].

Though it may sound dated, Genesee & Hamayan (1980: 96) assert, based on research undertaken in the 1970s, that "there has been increased interest [...] in the role of cognitive styles in second language learning [...] and the cognitive style of field independence in particular"[19]. Griffiths & Sheen's (1992: 138, 141, 143) critical position concerning the test[20] aimed at assessing the FD dimension mainly has to do with the fact that it tends to evaluate different abilities (reasoning, mental ability, visuo-spatial ability) rather than a cognitive style (see also Griffiths & Sheen,1992: 138)[21]. Any relationship between FD/I and SLL must then be taken with caution (see Griffiths & Sheen, 1992: 133).

We may even ask whether there exists or ever will exist a single instrument aimed at assessing foreign language learning/achievement, or language, as

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[18] See, for example, Seliger (1977), Genesee & Hamayan (1980), Hansen & Stansfield (1981), Hansen (1984), Chapelle & Roberts (1986), Abraham (1985), and Kahtz & Kling (1999). Here, it is worth quoting Griffiths & Sheen (1992: 143) based on literature: "[...] while the analytical ability of FIs [Field Independent] will facilitate their language learning, FDs [Field Dependent] will be able to build on their interpersonal social skills in improving their oral proficiency."

[19] See Genesee & Hamayan (1980: 96) about the ability and tendency to differentiate stimuli in the perceptual domain by FI and FD approaches. Wyss (2002: 1) refers to FI and FD as learning styles important for L2 learning; FI learners excel in classroom learning contexts which involve "analysis, attention to details, and mastering of exercises, drills, and other focused activities", while FD learners seem to show higher levels of success in "everyday language situations beyond the constraints of the classroom; tasks requiring interpersonal communication skills." As can be read in Griffiths & Sheen (1992: 135), manners of "«approaching a field»" may be seen from an analytical vs. global field approach perspective, regardless of the field being present in physical terms or symbolically represented. See also Wyss (2002: 1) when the author states that the "field" may be perceptual or abstract.

[20] The Embedded Figures Test (Witkin *et al.* (1971), referred to, among others, by Hansen & Stansfield (1981), Griffiths & Sheen (1992), B. Pithers (2001), and R. T. Pithers (2002), is used to assess the degree of FD/I. There are several versions: the Children Embedded Figures Test (see Genesee & Hamayan 1980: 98), and the Group Embedded Figures Test (GEFT) (see, among others, Hansen & Stansfield 1981: 354).

[21] As for the mode of perceiving, see, among others, B. Pithers (2001: 48) and Wyss (2002: 1).

a complex multifaceted process (see SLA). We could perhaps suggest, based on Hansen & Stansfield (1981: 354), that the Group Embedded Figures Test (GEFT), aimed at assessing field dependence dimension, may elicit skills[22] which are also probably used in verbal tasks.

Kahtz & Kling (1999: 422), on the other hand, suggest that FD/I theory seems more related to the way students learn than to their cognitive abilities. (An FD student, for example, prefers to learn in a group situation relying on the interaction among his/her members, whereas the FI student prefers a more individualised learning situation – see Kahtz & Kling 1999: 419[23].) We could even hypothesize that FD/I theory may to a certain extent contribute to the development of metacognitive abilities, by means of which people can decide on the most suitable learning strategy they should use according to the circumstances[24].

Based on her (psycho)linguistic experiments, Day (1977) presents two (cognitive) patterns also regarding SLA: language-bound/based[25] and language-optional. The "language-bound" (LB) pattern appears to correspond to the people who "report what the language allows, not the actual stimulus events" and the "language optional" (LOs) pattern seems to correspond to the subjects who "are able to use language rules or set them aside, depending on tasks demands." (Day 1977: 5B). Day also adds that "LBs have trouble mimicking certain foreign-language words […] while LOs mimic it [a Lithuanian word] accurately. […]" and also states that "[i]nformal discussion indicates that LBs

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[22]   The skills referred to are the "restructuring skills". In the authors'words, the "ability to locate, or separate, an item from context has been associated with the ability either to restructure a given organizational context or to impose structure on a field which lacks a clear organization […]" (Hansen & Stansfield 1981: 354).

[23]   In this respect, B. Pithers (2001: 49) states: "Witkin et al. (1971) discovered that field independent individuals, when compared to field dependent ones, are more capable of restruturing the perceptual field or imposing a structure if one is missing. They also tend to act more autonomously than FDs. FDs have a more social and interpersonal orientation". But, FD/I dimension should be read as a continuum. In fact, R. T. Pithers (2002: 122) refers to "the degree of FD-FID". According to B. Pithers (2001: 49), the approach based on the degree of FD-FID obtained by means of the GEFT seems to have recently reappeared in certain areas "as a basis for studying decision-making, information processing, strategy development and group processes in learning […]."For more details on FD and FID profiles, see R. T. Pithers (2002: 120-121).

[24]   This seems important from an educational perspective because, if FI students are more likely to learn and use rules than FD students, it is important to choose the most suitable teaching method (see Abraham 1985: 691).

[25]   As for the term "based", see *individual differences* in http://www.duke.edu/~ruthday/basiccog.html.

have trouble learning to speak and understand foreign languages (although they may be able to read them satisfactorily), while LOs reach fluency readily (although they may make some grammatical errors)." (Day 1977: 5D). Besides, "LBs seem to be so supremely «tuned» to the structure of their language that they have difficulty in changing its rules." (Day 1977: 5D)[26]. With regard to verbal fluency[27], Day (1979: 82) writes: "LBs and LOs do not appear to possess gross differences in quantitative aspects of verbal fluency. However, the two groups of subjects may achieve fluency in different ways, depending on the nature of the constraints imposed by a given category." Still according to Day (1979: 82), "[v]arious aspects of the present data suggest that LBs have more difficulty with categories that readily lend themselves to a spatial representation[28], while LOs have more difficulty with those based on phonetic constraints".

Verbal fluency could here be linked to the articulatory aspect of speech with obvious implications for working memory, and how speed of articulation may affect the more and less skilled L2 learners (see Brown & Hulme 1992; N. C. Ellis 1992). Flege (1999) also raises a very interesting point with regard to pronunciation. Based on data which suggest that "one's accuracy in pronouncing an L2 varies as a function of how well one pronounces the L1, and how often one speaks the L1" (Flege 1999: 125), he hypothesizes that the possible decline of L2 pronunciation accuracy may be due to the fact that one has learned to pronounce the L1 very well, and not to the fact that one has lost the ability to learn to pronounce (Flege 1999: 125). Furthermore, when Flege (1999: 106) comments on the interaction hypothesis[29], he states that it leads to a (very intriguing) prediction: the foreign accent in an L2 may diminish with the disuse or loss of the L1[30] (see also Meier 2001: 224). It would be interesting

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[26] For further data on LB-LO distinction, see Day (1979).

[27] It should be stressed that "[f]luency studies often disagree concerning the number of subfactors that compose a general fluency «ability»" (Day 1979: 81). And there may also exist "controversy concerning whether fluency reflects intelligence or is independent of it" (Day 1979: 81). As Day adds, "the existence of general patterns of cognition, such as those represented by the LB-LO distinction, could account in part for discrepancies that investigators obtain concerning factors and subfactors across a wide range of psychometric «abilities.»" (Day 1979: 81).

[28] It must be said that the test aimed at assessing FD-FID dimension also supplies indications of ability in the visuo-spatial domain (see Griffiths & Sheen 1992: 141).

[29] The interaction hypothesis, considered in the Critical Period Hypothesis context , suggests "a mutual influence of a bilingual's two languages on one another" (Flege 1999: 105).

[30] This point may be associated with the phenomenon of "language attrition" (see Seliger & Vago (Eds.), 1991; Köpke 2004). As for age constraints on first versus second language acquisition concerned with linguistic plasticity, see Mayberry & Lock (2003).

to see which of the profiles pointed out in this text are more likely to "excel" in terms of articulation and pronunciation[31].

As we have so far dealt with different (cognitive) profiles which have points in common when they deal with (language) learning situations and with tasks which, among others, require problem-solving attitudes and spatial abilities, it makes a certain sense to introduce Krashen's concept of the Monitor (see Mitchell & Myles 2004: 46; Krashen 1981: 12 ff.)[32], because it also takes into account individual variation. Krashen mentions the Monitor overusers, and the Monitor underusers (Krashen 1981: 15-18). The former do not like making mistakes, are always monitoring their productions by means of the stock of rules they have and their speech is non-fluent; the latter do not appear to care very much about their errors, they do not seem to monitor their output as the former do, because they probably believe that speed and fluency are more relevant (Mitchell & Myles 2004: 6). In Mitchell & Myles's (2004: 6) words, "Such learners rely exclusively on the acquired system and do not seem able or willing to consciously apply anything they have learnt to their output." Between both groups, there are the "optimal" Monitor users. They use the Monitor hypothesis whenever they feel it is suitable (Mitchell & Myles (2004: 46-47), also for a critical view on these claims).

On the other hand, Seliger (1977: 271), in his study on High Input Generators (HIGs) and Low Input Generators (LIGs)[33], is led to predict that HIGs "would be field independent, less fearful of experimenting with language, less afraid to make mistakes and less afraid to speak out." FD subjects "would be more likely to speak only when asked to in the language class and more fearful of disapproval because of mistakes" (Seliger 1977: 271).

As for Chun & Payne (2004: 483 ff.), they also refer to the L2 learners' preferences for visual and verbal information in a multimedia information framework, classifying them as "visualizers, verbalizers, or showing no strong

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[31] With regard to Field Independence and Foreign Language pronunciation acquisition and learning, see Baran (2004).

[32] Krashen's concept of the Monitor has to do with his Monitor Hypothesis, according to which "«learning has only one function, and that is as a Monitor or editor» and that learning comes into play only to «make changes in the form of our utterance, after it has been 'produced' by the acquired system» [...]" (Mitchell & Myles 2004: 46). In respect to the Monitor Model(/ Hypothesis), see also Krashen (1981: 1-3, 12-18).

[33] Seliger calls HIGs the "[l]earners who interact intensively, who seek out opportunities to use L2 and who cause others to direct language at them". On the other hand, LIGs are "[l]earners who either avoid interacting or play relatively passive roles in language interaction situations" (Seliger 1977: 263). HIGs and LIGs should be seen as a continuum (see Seliger 1977: 275).

preference" (Chun & Payne 2004: 483). Chun & Payne's (2004) contribution also stresses individual differences, relying in various ways on, for example, verbal and visual abilities, effects of cognitive load and working memory capacity, whose role is certainly very important in terms of learning with multimedia (Chun & Payne 2004: 482).

The existence of similarities between Krashen's, Day's, Seliger's and, to a certain extent, Chun and Payne's and FD/FI profiles is perhaps not a mere coincidence. In fact, they may possess an underlying common denominator which is, in part, responsible for language processing. The main point is that, using different methodologies, authors seem to come to processing types, regardless of the degree of correlation they may show with foreign language learning/achievement, which share similarities.

All this makes us think that those who are responsible for language learning situations should respect the preferences of the different individual profiles/patterns in terms of their verbal communicative competences, if language is not to be taken as a "uniform package" (Pines (1981: 34), quoting Curtiss – see below.)

6. THE MEANING OF "LANGUAGE" IN THE PRESENT CONTEXT

Another not less important terminological issue must be discussed, i.e., language.

The relationship between language (linguistic ability) and cognition (cognitive abilities) (Pines 1981: 34) deserves some attention before introducing any definition of language.

Do cognitive abilities play any role in the development of (second) language, or is there a dissociation between the development of cognition and the development of language? (See Mitchell & Myles 2004: 14, 57 ff.[34].)

There are children with cognitive deficits who are able to develop language in a normal way, and children who are considered cognitively "normal" but who present (severe) language impairments (Mitchell & Myles 2004: 58-59). On the other hand, as Mitchell and Myles remind us, brain-damaged adults may also show that language is separate from other cognitive faculties. In Mitchell & Myles' (2004: 59) words, "[n]ot only does language seem to be

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[34] For more details on the theoretical framework responsible for considering language "distinct" from cognition, see Field (2004: 180).

largely separate from other aspects of cognition – although the two interact of course – but within language itself, different modules also seem to be relatively independent of one another." With regard to SLL, the authors also present a modular view of SLL, according to which the learning of different aspects of language rely on distinct learning mechanisms (see Mitchell & Myles 2004: 14-15). For example, pragmatics and vocabulary would be learnt by mechanisms distinct from those which have to do with the learning of grammar (Mitchell & Myles 2004: 15).

Furthermore, with regard to the normal use of language, it must be said that it involves not only a linguistic competence, (enabled and) constrained by different cognitive entities, but also a discourse grammar, sociolinguistic rules, as well as a paralinguistic competence (Paradis 1998: 1). That is, language, in this sense, will not only be merely the language system, but instead linguistic competence and pragmatic competence (Paradis 1998: 7).

In effect, "language" deserves a definition able to cover the complex process it represents. When Curtiss refers to the study of youngsters (see Pines 1981: 34) where the "purely grammatical aspects of language – which reflects Chomsky's language universals – seem to be isolated from the semantic aspect of language, which is more tied to cognition", she states that "«[l]anguage no longer looks like a uniform package»" (Pines 1981: 34)[35].

In Paradis' (2004: 7) words, "[f]or the past 150 years or so, when linguists, psycholinguists and aphasiologists spoke of «language», they were referring to the language system, the code, the grammar, which has come to be known as *linguistic competence* and consists of phonology, morphology, syntax and semantics." Actually, as Paradis says, even if grammar is naturally necessary, it is not enough in terms of normal verbal communication. Metalinguistic knowledge, pragmatics and motivation are other functions which, according to the author, should also be considered in the production and comprehension of utterances (see Paradis 2004: 7). Paradis summarizes his way of thinking

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[35] In this respect, based upon literature Paradis (2004: 139) writes "that basic syntactic processes may operate independently of semantic (i.e., declarative) memory and are therefore independent cognitive modules." Paradis (2004: 139) adds at this moment that what has been said may mean that vocabulary depends on declarative memory (see Paradis 2004: 235) and syntactic processes on procedural memory (see Paradis, 2004: 244). For further information on controlled process-automatic process distinction, conscious versus subconscious awareness and routinized skills, see McLaughlin *et al.* (1983: 140). For more details on procedural and declarative knowledge and controlled and automatic processing, see Anderson (1983), and R. Ellis (1993; 1997), referred to by Foth & Dewaele (2002: 178).

as follows: "[…] verbal communicative competence comprises linguistic competence […], metalinguistic knowledge […], pragmatic competence […], and motivation[36] […]" (Paradis 2004: 30)[37]. He also highlights the relative role of these systems in normal verbal communication and the importance of their specific neural substrate (Paradis 2004: 30). Moreover, Paradis compares the aphasic patients with speakers of a second, weaker language. Both groups try to do the best they can: the former using extralinguistic cues to compensate for their difficulties in understanding the meaning of implicit speech acts, and the latter using pragmatic cues for their lack of linguistic competence (Paradis 2004: 19)[38].

If a critical view of language as a "uniform package" makes sense when the discussion concerns first language acquisition, we may now say that it becomes even more pertinent in a SLA context.

The acceptance of a neurofunctional way of looking at language processing (see Paradis 2004: 19, 30) implies the acceptance of looking at language as a broader entity or as a complex system of verbal entities requiring distinct approaches, which may be not strictly linguistic.

We may infer then that it is important to create learning situations in which both hemispheres are to be used. In this respect, Kang (1999: 3), using the FID-FD dimension, reminds us that teaching methods should also be diversified in order "to help students develop the flexible use of both

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[36] Paradis (2004: 27) considers different kinds of general motivation in terms of SL such as the instrumental one, which has to do with learning a language to improve the professional status, and the integrative one, which has to do with the wish to integrate another linguistic community.

[37] In this regard, Hansen and Stansfield mention linguistic competence, communicative competence and integrative competence (Hansen & Stansfield 1981: 355-356).

[38] For more details on lesions which may affect implicit linguistic competence (left-hemisphere ones) and aspects of pragmatic competence (right-hemisphere ones), see Paradis (1998: 4-5). In fact, "the RH's contributions to pragmatics in language use and the integration of each hemisphere's contribution to discourse will require further investigation" (Paradis 1998: 7). With regard to the fact that the same underlying deficit may be responsible for different language disturbances in different languages, see Paradis (2001). The following quotation from Damasio *et al.* (2004: 180) would appear to follow the same line of thought: "[a]ny current consideration of the macrosystems involved in the processing of language requires the involvement of many other [besides Broca's and Wernicke's areas] brain regions, connected by bidirectional pathways, forming systems that can subsequently cross-interact." This topic, therefore, deserves careful attention.

hemispheres by helping students perceive information in both an analytical (field-independent) way and a relational (field-dependent) way"[39].

Besides, learners should at the same time be aware of the fact that they must take advantage of their abilities, aptitudes, competences, knowledges, styles, beliefs and strategies, naturally using their metacognitive knowledge in learning terms (see Wenden 1999), so that, by means of compensatory mechanisms, they may reach the expected goals the best they can. As B. Pithers (2001: 58) writes: "[t]the learner needs to be able to learn to differentiate between different styles, practise a range of them and then, later at work [/ learning], apply the most appropriate style or level for the demands of the context in which they find themselves at a particular time." We could add that the better we know ourselves, our styles, the more flexible in terms of the use of the more suitable strategies we probably become, and the more success we should obtain.

7. FINAL REMARKS

A complex area of study such as second language processing is in no way only correlated with one measure or test in particular. If language is not to be seen as a "uniform package", it will be a mere illusion to find a test or an instrument[40] which may be used to obtain a direct correlation with foreign language achievement, or which may give us complete data about how to get the best performances in foreign language learning.

Nonetheless, any fragile correlation which might be found with any test or tool aimed at assessing any ability or measure concerned with learning may shed some light on any other aspect of (second) language (learning) processing. Thus, any of those tools may lead to a deeper knowledge of a general or particular (verbal or non-verbal) ability connected with a verbal task and help us to adopt more suitable learning practices. It is therefore important to be less radical than Griffiths & Sheen (1992) as to the FD/I dimension (see mainly Griffiths & Sheen, 1992: 133, 145) because data obtained by means of instruments such as the GEFT (Witkin *et al.* 1971) or Day's (1977) psycholinguistic tests may be of some help as far as learning is concerned.

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[39] Kang (1999: 3) reminds us, based on brain theory research, that the left hemisphere is concerned with the verbal, sequential, and analytical abilities, whereas the right hemisphere is concerned with the global, holistic, and visual-spatial functions.

[40] See also Oller & Hinofotis (1980), and Krashen (1981: 100).

They may even be of great help if we consider what is required of our abilities by the new Information and Communication Technologies.

Moreover, computer assisted instruction or language acquisition with multimedia are recent learning settings which may facilitate looking in a different way at the various above-mentioned individual profiles (FD/FID, LBs and LOs, "underusers" or "overusers", HIGs or LIGs, "visualizers" or "verbalizers") (see Pinto 2007 b).

Although the different profiles may be critised when language in the strict sense is taken into account, it is possible to postulate that they certainly have another potential when language is taken within a broader framework, i.e, in the sense of the human verbal communication faculty. It is perhaps that way of looking at the subject which has been enhancing the study of some of those profiles and their implications in vocational as well as, naturally, in teaching terms (see, among others, Day1977; B. Pithers 2001; Fritz *et al.* 2002; Bouckenooghe *et al.* 2005).

In sum, speaking of SLA studies in general, we may say that we are faced, on the one hand, with language which may offer an unpredictable resistance, and, on the other hand, with the learner, who, thanks to his/her "human linguistic faculty" (Crystal 2001: 242) of communication, may come to unexpected outcomes even when faced with unpredictable verbal situations.

Therefore, the hardest and most fascinating task of the SLA researcher will be to foresee the unpredictable resistance of the language as a learning object and the unexpected outcomes of the learner as an active agent so that, conjugating both trends, s/he will be able to master his/her area of study.

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