Since ‘multicompetence’ was proposed by Cook, there have been debates about the nature of distinction between monocompetence and multicompetence, the distinctiveness of languages in the mind and the homogeneity of language knowledge across speakers and contexts. The paper will address these issues from a linguistic perspective and make an attempt to define multicompetence. The paper claims that trends in linguistics have affected bi and multilingualism research either directly or indirectly. Consequently, in order for us to understand approaches to multicompetence we should review the latest changes in linguistics research. All debates about multicompetence boil down to three major issues: (1) The interplay of the linguistic level and conceptual level in multilingual development and language use, (2) nature of difference (qualitative or quantitative or both) between monocompetence and multicompetence and (3) methods of analysing differences between monocompetence and multicompetence. Addressing these issues I will argue that there is not only quantitative but also qualitative difference between monolinguals and multilinguals, which is reflected mainly in the nature and organisation of knowledge in the multilingual mind. I will also argue that it would be a mistake to overemphasise the role of usage in multilingual development. Language is both structure and usage. Both are equally important: structure develops as a result of usage and structure serves as one of the underlying factors of usage. ‘Community practices’ exist within and across languages so they cannot substitute what we understand by ‘language’. In the first part of the paper I discuss the relationship between current trends in linguistics research and approaches to multicompetence. In the second part I have taken a stand on the major issues of the debate about multicompetence.

**Keywords:** multicompetence; monocompetence; dual and multilanguage system; conceptual level; dynamism; broad language faculty; narrow language faculty; qualitative change; quantitative change; usage-based models; community practices; bilingualism; mental lexicon; multilingual lexicon; multilingualism; language development

**Linguistics and bi and multilingual research**

Bi and multilingual research has always been under the influence of monolingual research. Scholars interested in bi and multilingualism have usually adopted and modified theories, and approaches developed to explain the origin, emergence and use of one language. This makes it necessary for us to review current research trends in linguistics while we discuss the similarities and differences between monolinguals and multilinguals.

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Trends in linguistics

In recent years the field of linguistics has been thriving and received increasing attention outside the paradigm. This is partly due to the fact that there has been a gradual shift of interest from the monolingual ideal speaker’s grammar and language use to the interlocutor, whose language development and use is determined not only by individual features but also by the sociocultural environment and situations in which s/he functions. Linguistic research has expanded beyond studying I-language (the internal language system of an individual) to also consider E-language (the external language shared by members of a group), through the analysis of discourse and textual representation as well as the pragmatics of these levels of linguistic representation. This move has had a beneficial effect on the bi and multilingualism paradigm because it has resulted in interesting debates about the relationship of two or more language systems, dual and multilanguage development, and language use.

Linguistics research has always been characterised by a unique dynamics of separatist and synergistic endeavours. This goes back to the basic question of whether language is a relatively independent cognitive faculty or an essential part of overall cognitive development. As a result, we have a number of sub-paradigms with a special focus. At the same time, however, there has always been a strong desire to cross-disciplinary boundaries and pull together knowledge generated by using different perspectives of language-oriented research. Recent events point to the fact that synergetic endeavours are receiving more attention than ever before. Bi and multilingual research has always required reliance on disciplines such as sociolinguistics, psycholinguistics, pragmatics, applied linguistics, communication, education, etc.

In linguistics it was a significant step when the Minimalist Programme proposed that it is possible to capture knowledge of language as a function from sets of lexical items to meaning-sound pairs. Basically, this means that grammars are lexically rather than syntactically driven. Chomsky argued that sentences in all languages have the same phrase structure that consists of a lexical domain (VP) and a functional domain (Chomsky, 1995, 2000). The lexical domain is the place of insertion of the verb and its arguments. Derivation begins with the selection of relevant lexical items that are arranged into a particular structure (or structures) using three syntactic operations: Merge, Agree and Move. The Lexical Learning Hypothesis (e.g. Clahsen, Eisenbeiss, & Penke, 1996; Clahsen & Muysken, 1996) also claims that the development of grammar in children is largely driven by the child’s gradual acquisition of lexical items.

Recently in linguistics the debate has been not about the legitimacy of meaning and performance research (usage), but about the extent to which grammar-research and usage-research can be combined, and what role communication plays in shaping grammar. In other words, whether one can and/or needs to support the other or they should not interact at all. Linguists have never denied that there is some link between structure and usage. Chomsky wrote that ‘surely there are significant connections between structure and function: this is not and has never been in doubt. Searle argued that “it is reasonable to suppose the needs of communication influenced [language] structure”. I agree’ (Chomsky, 1975, pp. 56–58). In a recent article Newmeyer (2003) said that mental grammar contributes to language use, but usage is not represented in the grammar itself. Knowledge of grammatical structure is only one of many systems that underlie usage.
**Multicompetence**

Since Cook’s (1991, 1996) introduction of the term ‘multicompetence’ (…compound state of mind with two grammars [Cook 1991, p. 112]), much has been written about how multicompetence differs from monocompetence. This interest of researchers can be explained by two facts. First, in our globalised world multilingualism has become the norm rather than an exception. Second, the term ‘multicompetence’ as defined by Cook is rather contradictory, and has been criticised by many (e.g. De Angelis, 2007; Hall, Cheng, & Carlson, 2006; Kecskes & Papp, 2000). Cook created the term in opposition to Chomsky’s ‘ideal speaker-listener in a completely homogeneous speech community’ (Chomsky, 1965). However, his concept of multicompetence hardly differs from the notion of Chomskian competence. Cook basically refers to the multiplicity of language competence in the same mind. Multicompetence in this sense is about linguistic knowledge, and the role of the conceptual system is ignored as it is in the Chomskian paradigm in which linguistic meaning is viewed as a symbolic system that maps onto a universal and symbolic conceptual system that may be innate or learned pre-linguistically (e.g. Jackendoff, 1992; Pinker, 1994). However, a cognitive approach in bi and multilingual research has emphasised that the conceptual system is culture-specific rather than universal (e.g. Kecskes & Papp, 2000; Wierzbicka, 1992). This was also supported by research in cognitive linguistics (e.g. Gibbs, 1990; Kövecses, 2000). In this paper I offer a dual and multilanguage model to explain multicompetence. First, however, we need to discuss how linguistic knowledge and conceptual knowledge intertwine and differ from each other and how this can be related to a possible dual and multilanguage model.

**Linguistic code and world knowledge**

The first step should be to examine the interplay of language knowledge and world knowledge, both of which are inseparable parts of cognition. Language does two things simultaneously: it reflects reality (the way things are) and constructs reality to be a certain way. Gee said that ‘reciprocity’ is a good term to describe this property of language. But ‘reflexivity’ is a more commonly used term because language and world context are like two mirrors which face each other and ‘…constantly and endlessly reflect their own images back and forth between each other’ (Gee, 1999, p. 82). Kecskes (2008) argued that there are two sides of world knowledge: one is encoded in language based on prior experience, and the other is the actual situational context in which interaction between individuals and the world, and interaction between individuals happens. According to this approach, meaning is the result of the interplay of prior experience and current experience, which are both sociocultural in nature. Prior sociocultural experience is encoded in the meaning values of lexical items that make up the utterances used by the interlocutors, and current experience is represented in the actual situational context in which communication takes place, and which is interpreted (often differently) by the interlocutors. In speech communication, people attempt to fit their language to a situational context that their language, in turn, helped to create in the first place. This reciprocity means that language both creates context and is created by it (cf. Gee, 1999; Goodwin & Duranti, 1992). What consequence does this have on multilingual development and multicompetence?
Linguistic signs (words) and their combinations (structures) representing different languages encode and carry different worldviews. They are the representatives of prior experience of speakers of that particular language with the world. In this paper I promote that version of cognitive linguistics, which makes a clear distinction between real world and projected world in the ‘outside world → perception → inside world’ relationship (Jackendoff, 1983, 2002). We have conscious access only to the projected world, which is ‘the world as unconsciously organised by the mind’ (Jackendoff, 1983, p. 29). This is especially important for multilingualism because even if the target object or action is the same out there in the world, people speaking different languages may find it important to mark and/or emphasise different aspects of the same object or action. For instance, in English we say ‘cauliflower’, an acknowledgment of its unusual place among a family of food plants, which normally produces only leafy greens for eating. In Russian the lexical equivalent is ‘цветная капуста’ [coloured cabbage], which highlights the colour of the plant. In English the metaphorical expression ‘pass away’ is used when somebody dies. Metaphorism derives from the action of passing. In Hungarian the closest metaphorical equivalent is ‘elhuny’. This word underlines the process of closing someone’s eyes. The phenomenon is the same, but different aspects are lexicalised in the two languages.

Words are much more than just linguistic signs. Because they encode the history of their use in social interactions, and their primary function is to facilitate and convey social interaction, most lexical units have particular sociocultural loads attached to them. These loads may represent different worldviews and differ culture by culture. For instance, in American-English the concept [ambition] denoted by the label ‘ambition’ usually has a positive sociocultural load, while in Chinese speakers have two labels to choose from. ‘Ye xin’ has negative sociocultural load while ‘bào fù’ usually refers to a positive phenomenon. In American-English the verb ‘patronise’ usually has a negative connotation while its lexical equivalent in Korean ‘huwon-hada’ has an exclusively positive sociocultural load (Kecskes, 2008).

The way people see and understand the world is usually reflected in their language. However, language also shapes world knowledge to some extent. This weak version of the Sapir–Whorf hypothesis looks adaptable for multicompetence. In order for L2 learners to use a new code system (language) appropriately, they are expected to acquire the encoded world knowledge of the speakers of that particular language not through experience but through the linguistic code. So here is the problem: the code (lexical items and structures) in the new language is relatively easy to learn. The difficult thing is to acquire the lexical and sociocultural load attached to the new linguistic code through limited experience or explanations in school or with limited access to the target culture. The L2, L3, Lx learner cannot repeat the experience which results in a particular worldview in the speakers of that particular language community that uses the given language as L1. So developing language through exemplars and experience is available in L2, L3, Lx to much less extent than in L1. This is where we have to be careful with the role of usage in bi and multilingual development because the L1 experience cannot be repeated in L2, L3 and Lx. Consequently, the role of usage may be more limited in bi and multilingual development than in L1. What consequence will this fact have on the operation of the bilingual mind?
The interplay of linguistic level and conceptual level

The notion of multicompetence can have different interpretations depending on how we evaluate the relationship of language to cognition. This relationship is usually approached from three perspectives: Cognitivists (e.g. Langacker, 1987) argue that there is no separate language faculty because language is an essential part of cognition. Generativists (e.g. Chomsky, 1995) consider the language faculty an independent cognitive construct that interacts with the rest of the cognitive system that is universal. In recent years a third interpretation has emerged according to which although the linguistic system is part of the overall culture-specific cognition, still it has some independence (e.g. Gibbs, 1998; Giora, 1997, 2003; Kecskes, 2002). For understanding multicompetence, this third approach appears to be the most adaptable one as we will see later. It is supported by recent research. Khateb et al. (2007) suggested that language selection in multilinguals is achieved through a neural network involving areas implicated in both general cognitive processes and language processing.

The lexicon as an interface between the conceptual and linguistic level

Many linguists are convinced that the evolutionary origins of grammar lie in the conceptual structure, not in communication. Newmeyer (2003, p. 699) said the following about this linkage: ‘No one denies that the links between syntactic structure and whatever one might want to call it – conceptual structure/logical structure/semantic representation – are very direct’. Theories such as cognitive grammar or construction grammar go so far as to not even allow for an independent level of morpho-syntactic patterning (e.g. Langacker, 1987). It is argued that the grammatical system is rooted in the conceptual system and inseparable from it. However, as a result of the growing interest in performance and meaning, researchers have started to question the direct link between syntactic structure and aspects of conceptual structure. According to these views, the conceptual system that emerges from everyday human experience is the basis for natural-language semantics rather than for structure, which is the result of lexical merging. This means that our experience with the world gets coded in lexical items rather than structures. In this sense structure is secondary to the lexicon because it is the process of merging lexical items that results in structures. Gibbs (1998) said that in his estimate, cognitive linguists would not argue against the idea that there is a mental lexicon that might be independently accessed during sentence processing. In Gibbs’ opinion, part of the confusion about the role of cognitive structure in language use and processing results from the failure to distinguish between different levels at which cognition and language interact. The meaning of lexical items is rooted in human cognitive experience; experience of cultural, social, mental and physical worlds. ‘This is not to say that all aspects of language reflect conceptual structure because there is probably a fair amount of linguistic knowledge that is indeed autonomous from general cognitive mechanisms (Gibbs, 1994, p. 39).’

My own approach to bi and multilingualism has been shaped by this line of research that is represented in the works of Gibbs (1998), Giora (1997, 2003) and others. Multicompetence can be understood if we accept that the lexicon is an interface between conceptual level and linguistic level. In the case of bi and multilinguals, it is not the languages that are integrated but the conceptual systems:
we have one conceptual system that may operate more than one language. Consequently, the ‘otherness’ of language use of multilinguals appears to derive from the conceptually based and qualitatively different content of their information-processing systems rather than from the linguistically based means of those systems.

Grammar is rooted in the conceptual system; not directly, as is claimed by many linguists, but through the lexicon. Grammar is a poor reflection of usage because usage is not directly reflected through grammar. It is the lexicon that operates as an interface between grammar and usage (Kecskes, 2002). Social changes and communicative needs are reflected primarily in lexical units rather than grammatical structures. Communicative needs are put into lexical items that require particular structures. In bi and multilingual research we should pay special attention to the lexicon, and the way it reflects social intentions and communicative needs.

**Narrow language faculty (NLF) and broad language faculty (BLF)**

In a dual or multilanguage model that represents multicompetence, the relationship of language channels with the rest of the cognitive system can be best understood if we consider language as a two-level system with the lexicon as an interface. This interpretation gets support from current linguistic research (e.g. Hauser, Chomsky, & Fitch, 2002; Pinker & Jackendoff, 2005). In this sub-section I focus only on NLF, BLF and words as understood in linguistic theory. Later I discuss how this approach relates to the understanding of dual and multilanguage systems.

Recent linguistic research (e.g. Hauser et al., 2002; Pinker & Jackendoff, 2005) differentiates between aspects of language that are special to language code (‘Narrow Language Faculty’, NLF) and the faculty of language in its entirety, including parts that are shared with other psychological abilities found elsewhere in cognition (‘Broad Language Faculty’, BLF). The lexicon can be considered as an interface that ties NLF to the other elements of the BLF.

Word is an essential aspect of language. According to Pinker and Jackendoff (2005, p. 212) ‘...in the minimal case, a word is an arbitrary association of a chunk of phonology and a chunk of conceptual structure, stored in speakers’ long-term memory [the lexicon]’. Most words (as well as affixes) can combine into complex words such as compounds (e.g. blackmail) and other derived forms (e.g. applicability) according to principles of the component of language called morphology. Morphology, together with syntax, constitutes the recursive components of the linguistic system.

Pinker and Jackendoff (2005) explained very clearly how words connect the conceptual system and the linguistic system. They argued that words are not just names for things. Words are also marked for a syntactic category (verb, preposition and so on), for obligatory grammatically encoded arguments (agent, theme, path and so on), and for selection restrictions on the syntactic properties of their complements (e.g. whether each one is headed by a preposition, a finite verb or a non-finite verb). This information, which is partly idiosyncratic to each word and therefore must be stored in the lexicon, critically governs how the word enters into the recursive components of grammar (morphology and syntax); it cannot be identified with the conceptual database that makes up general world knowledge. So words unify linguistic knowledge and conceptual knowledge.

Pinker and Jackendoff (2005, p. 214) do not think that words can be cut off from the language faculty: ‘So other than acquiring the names for salient things, it is hard
to see how words can be carved away from the NLF and relegated to a generic mechanism that learns facts from people’s intentions’. Diesendruck and Markson (2001, p. 639) showed that young children tacitly assume that speakers share a code. They concluded: ‘Interestingly, the present findings lend indirect support to the idea that in some respects, word learning is special’. This is one more argument that supports the idea that the lexicon is an interface between the conceptual level and linguistic level.

**Dual and multilanguage systems**

The dual language model in its former version was put forward as an alternative to ‘interlanguage’ (Kecskes, 2003; Kecskes & Cuenca, 2005). ‘Inter’ means ‘in between’; however, the language learner is not necessarily ‘in between’ something; rather, s/he is in the process of changing her/his existing conceptual and linguistic systems by adding new information which will result in both quantitative and qualitative changes in the original conceptual system, and the eventual emergence of a new linguistic system (NFL) that is rooted in the same conceptual system (‘Common Underlying Conceptual Base’) as his/her L1.

The dual language approach tracks changes in the conceptual system, and investigates what happens to the knowledge that enters the common underlying conceptual base through the two or more language channels, as well as how this knowledge is put to work in the respective languages.

The dual or multilingual model is a complex cognitive construct. Its complexity derives from the fact that it consists of a linguistic faculty (NLF) that is tied to the rest of the cognitive apparatus (‘Common Underlying Conceptual Base’) through the lexicon, which functions as an interface between the two. Lexical items have forms (word stems and morphological markers) that tie them to the linguistic system and meanings rooted in human cognitive experience; experience of cultural, social, mental and physical worlds. These two sides give an interface status to the lexicon. So the BLF that linguists speak about has two interwoven parts: one side is responsible for thought formation (common cognition part of BLF) and the other side (NLF) is responsible for code manipulation. When we want to say something, our intention leads to a preverbal thought that triggers word selection. The selected words require structures. These ‘worded’ and formulated structures representing preverbal thoughts are uttered in the course of communication. This production process is dynamic, which means that it goes back and forth so adjustments in the process are natural phenomena (e.g. Levelt, 1989, 1995). In the case of bi and multilinguals it is crucial to emphasise that in the production process they select not languages, as several studies (e.g. Costa & Caramazza, 1999; Myers-Scotton, 2002) claimed, but words that lead to the activation of one of the constantly available language channels (NLFs). *So it is not languages that compete for selection, but words.* This assumption is supported by recent research (e.g. Khateb et al., 2007; Kroll, Bobb, & Wodniecka, 2006). Past research debated whether the language of speaking could be determined in advance of speech planning. Kroll et al. (2006) argued that the reason it was difficult to come to an agreement about language selection is that there is not a single locus of selection. Rather, language selection depends on a set of factors that vary according to the experience of the bilinguals, the demands of the production task, and the degree of activity of the non-target language.
The dual and multilanguage approach focuses on the process of language system construction (NLF) as a result of conceptual changes, bidirectional influence between languages, and movements up and down the developmental continuum. While the languages are kept separate, thoughts originating in the same conceptual system are fed into two or more different language channels. This has a profound impact both on production and comprehension: what we choose to say, how we choose to say something, how we understand things said to us, and what we consider relevant and appropriate. Kroll (2008, p. 5) argued that becoming a successful speaker of two languages requires a fundamental reorganisation of the entire language system, not simply the acquisition of isolated linguistic knowledge. This reorganisation has consequences for language use in each of the bilingual's two languages and for cognition more generally. Bialystok, Craik, Klein, and Viswanathan (2004) demonstrated that elderly bilinguals who have actively used their two languages their entire lives are offered a measure of protection against decline in executive function that appears to be specifically related to their bilingualism. Kroll speculated that these cognitive benefits are related to the competitive nature of language processing. The mental juggling that seems to be necessary to negotiate the use of two or more languages is a natural consequence of bi and multilingualism.

Quantitative and qualitative change in the bi and multilingual mind

One of the major issues in recent bi and multilingual studies has been the nature of change created by the emergence of a second, third or x language. Current trends favour the view that adding a new language is a quantitative rather than qualitative process (e.g. De Bot, 2008; Hall et al., 2006; Paradis, 2004, 2007; Stowe, 2006). However, there are opposing views according to which qualitative change also occurs (e.g. Javier, 2007; Kecskes, 2006; Kroll, 2008; Yip & Matthews, 2000). Before I take a stand in the debate I find it important to examine what exactly qualitative change means, and how it relates to quantitative change.

Nature of qualitative change

A bi or multilingual person will not necessarily have two ‘projected worlds’ in his/her mind; rather s/he will adjust and/or modify her/his existing world view according to the requirements of the new language and culture tied to the new language. Consequently, there is more synergism than separatism here, which may result not only in quantitative changes but also a qualitative change in the mind of the multilingual. Acton and Walker de Felix (1986) claimed that until proficient non-native speakers reach an advanced acculturation stage, their language production is usually based on their L1 world view and its sociocultural framework.

Qualitative change refers to the reorganisation of concepts and modification of behaviour with development, leading to major alternations in underlying processes. Philosophers have tried to integrate the ever-changing nature of the material world into a system of scientific philosophy. The first attempt came from the German philosopher Hegel, who showed that though most of the time material entities undergo slow and quantitative changes, there are times when the changes become drastic and qualitative, transforming one state of existence into another. For instance, the transformations of water into ice or of a seed into a plant are examples of such qualitative change from one state of existence into another.
The development of multicompetence results both in quantitative and qualitative changes in the mind. While language learners acquire only new labels (words) for their existing concepts the change is quantitative rather than qualitative. However, when they start to modify the content of existing concepts, this process will lead to qualitative rather than quantitative change resulting in synergic concepts. Kecskes (2007) demonstrated in two pilot studies that restructuring existing knowledge belonging to a particular label (word) in the L1 under the influence of new knowledge gained through L2 often leads to synergic concepts in the bilingual mind. However, it should be emphasised that synergic concepts do not mean some kind of mixture of knowledge and/or information. They are a group of concepts that are lexicalised in both languages but may have a somewhat different sociocultural load in each language. In the mind of proficient bilinguals the two different sociocultural loads are blended, which results in a conceptual domain that is not equal to the content of the conceptual domain in either language. For instance, the English and Spanish words ‘morning’ and ‘mañana’ or ‘lunch’ and ‘almuerzo’ have different sociocultural loads in each language.

It is important to underline that a qualitative change will be different from the change that happens when a person is exposed to different things within his own culture and language community. If a person moves from Albany, New York to New Orleans, Louisiana, makes adjustments to the new culture, and starts to say things like ‘I might could do this’, this cannot be compared qualitatively to the case when a person moves from Albany, New York to Lille, France. In the first case we can speak about peripheral rather than core changes in the BLF. Louisiana culture and Upstate New York culture can be considered subcultures of American culture, and Louisiana dialect and the Upstate New York way of speaking are dialects of American-English. However, the change is different when a person moves from Albany, New York to Lille, France. Upstate New York dialect compares to the Picard dialect of Lille differently than to the Louisiana dialect. In the first case we speak about dialects of different languages while in the second case we speak about dialects of the same language. There is a qualitative difference between crossing language boundaries and crossing dialects, but staying within the confines of the core of one particular language. The same is true for cultures. The relationship between American and French cultures qualitatively differs from the relationship between Louisiana subculture and Upstate New York subculture. English–French bilingualism may create qualitatively different changes in the mind of a person than Louisiana–Upstate New York bidialectalism. I would like to emphasise that this view does NOT represent a homogenous approach to language and culture. Languages and cultures are not homogenous in the dual and multilanguage model. What is temporarily and relatively homogenous is the linguistic faculty (NLF) that changes diachronically while the BLF (that comprises NLF and common conceptual base) changes synchronically. The problem is that it is hard to determine when and where the qualitative change kicks in (happens) in the mind of bilinguals during the process of becoming a bilingual.

**Quantitative versus qualitative**

Relying on monolingual approaches, usage-based models of language and research in cognitive psychology, several researchers of bi and multilingualism have argued that the difference between monolingualism and multilingualism is quantitative rather
Paradis claimed that ‘...Bilinguals have a conceptual base that is qualitatively identical to that of unilinguals. Only the number of language-governed concepts and their exact boundaries differ. Bilingual memory does not differ in kind or in organisational principles from unilingual memory. It can be said that ‘bilingual memory differs from unilingual memory to a great extent’ (quote from Kecskes & Papp, 2003, p. 258) only with regard to what is represented and processed, not how. The common conceptual base of bilinguals is identical in nature, organisation, development and use, to the unilingual conceptual base (Paradis, 2007, pp. 10–11). Gumperz and Cook-Gumperz (2005, p. 1) have a somewhat different opinion according to which ‘...bilingual communication should not be conceived of as something distinct from everyday communicative interaction. Monolingual and bilingual children do not differ in what they do with language, but in how they do it. Whereas monolinguals rely on style switching and voicing, bilinguals employ these strategies in addition to their bilingual resources. Code-switching for bilinguals serves as an indexical strategy which functions much like other similar discourse level processes’. What this statement emphasises is that monolinguals and bilinguals have the same linguistic means, but differ in how they use those linguistic means. So the difference is conceptual rather than linguistic because the conceptual system is responsible for the operation of the two or more language channels.

Some of the latest research (Kecskes, 2007; Kovelman, Baker, & Petitto, 2008; Safont Jorda, 2005) in bilingualism also appears to support the ‘qualitative change view’ of bilingualism. Kovelman et al. (2008, p. 153) attempted to answer the question: Does the brain of a bilingual process language differently from that of a monolingual? They compared how bilinguals and monolinguals recruit classic language brain areas in response to a language task and asked whether there is a ‘neural signature’ of bilingualism. Highly proficient and early exposed adult Spanish–English bilinguals and English monolinguals participated in their experiment. The authors investigated similarities and differences in behavioural and neural responses between bilinguals and monolinguals, and between a bilingual’s two languages. They found that bilinguals had a significantly greater increase in the blood oxygenation level-dependent signal in the left inferior frontal cortex (LIFC) (BA 45) when processing English than the English monolinguals. The results of the study provided some insight into the question about the degree of separation of bilinguals’ dual language representation. The authors concluded that there may possibly be a ‘neural signature’ of bilingualism.

Hall et al. (2006) argued against qualitative change in the bilingual mind, saying that ‘...all language knowledge is socially contingent and dynamic no matter how many language codes one has access to. The differences across users are based not on the number of languages, but on the amount and diversity of experiences and use. Thus, while it is true, as Cook (1991, 1992) asserts, that the language knowledge of multilinguals is not the same as that of monolinguals, the differences in language knowledge are not qualitative or linked to differences in number of linguistic codes (that is, monolingualism versus multilingualism). Rather, they are tied to pragmatic variation in the use of language within and across social experiences in which individuals are engaged, variation that exists even within a single language code. As noted earlier, the more frequent and varied communicative contexts are in which individuals engage, the wider the range of forms and functions they are likely to have experienced, and the wider and more encompassing their understandings about
language are likely to be. This variability, as Frisch, Large, Zawaydeh, and Pisoni’s (2001) study revealed, is not a matter of language code, since the subjects in their study were all English speakers, but of experiences using language. From this, we can conclude that language knowledge is always provisional and sensitive to renegotiation and renewal, a conclusion that belies the idea that there is, or indeed, can ever be a homogenous monolingual native speaker. Thus, even monolinguals-as conventionally defined in the literature of multicompetence – can be considered to be multicompetent (Hall et al., 2006, pp. 229–230).

The main problem with Hall et al.’s criticism is that it seems to ignore the fact that NOT ALL language knowledge of bi or multilingual speakers derives from social-cultural experience of the use of L2 or Lx. Much of non-native speaker knowledge (especially in a foreign language environment) originates through studying the code (NLF) itself rather than emerging in lifelike social experience through language use. Second or third (etc.) language socialisation and communicative experience differs greatly from first language socialisation and communicative development (Kecskes, 2002). L2 or Lx learners cannot go through the same stages of development as in L1 where language development and socialisation in language go hand in hand. Besides, language is a unique cognitive phenomenon. Modern linguistics was strongly influenced by Chomsky’s observation that language learners make grammatical generalisations that do not appear justified by the evidence in the input (Chomsky, 1965, 1980). The notion that these generalisations can be best explained by innate knowledge, known as the argument from the Poverty of the Stimulus, has led to an enduring debate that has been central to many of the key issues in cognitive science, linguistics and multicompetence. Second and x-language acquisition supports the Poverty of Stimulus argument even more than L1 acquisition. I do not fully agree with Chomsky’s innatism but argue that language development and use in L2 has its own dynamism that depends on more than just social interaction. L2 learners and users sometimes have little or no chance to use their target language in genuine social interaction. Instead, through the study of the language code (NLF) they attempt to make intelligent hypotheses about the social use of the code when required. In L1 the emergence of language structures is tied mostly to social interaction, while this is not exactly the case in L2 and Lx development. Hall et al. (2006) see a direct connection between the frequency and variety of communicative contexts and the range of forms and functions. This may be true for L1 development, but only partly true in L2 and bilingual development because L2 learners have little access to authentic situational contexts in which ‘range of forms and functions’ can be acquired. Still, they are pretty good at acquiring forms and, to some extent, even functions. A higher level of systematic knowledge of language (BLF), which can be considered the result of qualitative change, will lead to a more appropriate use of that linguistic code (NLF).

Language development is not just a sequence of quantitative changes. Rather it consists of developmental stages that are characterised by qualitative differences. Qualitative changes will lead to a quantitative change. Both Krashen (1985) and Vygotsky (1978) spoke about the fact that learning in language development happens if learners are challenged at a level that is higher than their existing level of knowledge. Krashen said that the learner needs to be provided with input that is beyond her present capacity; it is in the effort that she makes to comprehend the material that is the source of her linguistic progress. Vygotsky’s definition of zone of proximal development presents it as ‘the distance between the actual developmental level as determined by independent problem solving and the level of potential
development as determined through problem solving under adult guidance, or in collaboration with more capable peers’ (Vygotsky, 1978, p. 86).

Several studies on past tense markers in different languages (see studies in Salaberry & Shirai, 2002) demonstrated that in the first phase of language development past tense forms are handled as different entities, in the second phase of development there is an overuse of the standard variants and/or markers while in the last phase of development as a result of qualitative change everything falls into its right place. The thesis–antithesis–synthesis developmental sequence is characteristic not only for linguistic markers and structures (NLF) but also for pragmatic features of language such as use of situation-bound utterances (Kecskes, 2002). According to Hegel, synthesis does not represent a cancelling out or answer to, or something like that to the first two terms (thesis, antithesis) but that the first two terms are lifted up and preserved in the synthesis to some extent. So knowledge becomes qualitatively rather than quantitatively different. This is what happens in the bi and multilingual mind. The presence of the L1 means the thesis, the development of L2 is the antithesis while the emergence of bilingualism represents the synthesis, which is neither L1 or L2 but a dual and multilanguage system. ‘...The pragmatic variation in the use of language within and across social experiences in which individuals are engaged (Hall et al., 2006, p. 229)’ is the primary source of the development of synthesis but not the only source. The understanding of logic and connections within the code by the language users is also an important factor on the way of bi and multilingual development. However, there is no doubt about the fact that frequency and variety of contexts are needed for qualitative change. As Barron (2003, p. 10) pointed out ‘knowledge of the appropriate contextual use of the particular languages’ linguistic resources’ is a crucial part of pragmatic competence. Studies on stay abroad programs appear to have potentially huge effects on L2 learners understanding of appropriateness in the target language (cf. Kinginger & Belz, 2005; Kinginger & Blattner, 2008; Wilkinson, 2002).

Usage-based models of language and multicompetence

Attacks on ‘language’

Currently there is quite a strong tendency to question the term of ‘language’ in a traditional sense. According to this approach there is no language code that exists a priori in our brain or in our experience (cf. Bybee & Hopper, 2001; Chaiklin & Lave, 1993). The categorisation of a language depends on its application. So languages should be classified only a posteriori. These attacks come from two different directions: cognitive research and sociocultural theory. Smith and Samuelson (1997) reported that the traditional search for constant concepts has not been successful. Several studies (e.g. Malt, 1994; Smith & Sloman, 1994) have suggested that acts of categorisation are not simply repeated; they actually vary. Different tasks and contexts appear to create different categories. Barsalou (1993) demonstrated that individual acts of categorisation do not necessarily require an already represented concept. Based on these claims, Smith and Samuelson (1997) suggested a unified account of category stability and variability that is not built on the notion of fixed, represented concepts.

Several linguists (e.g. Chomsky, 1965; Pinker & Jackendoff, 2005; Searle, 1969) argued for a traditional a priori understanding of language. Others such as cognitive
linguists (e.g. Fauconnier, 1994, 1997; Langacker, 1987, 1991a, 1991b; Tomasello, 2000) maintain that it only makes sense to classify languages a posteriori. The term ‘a posteriori’ literally mean ‘after the fact’. When used in reference to knowledge, it means a type of knowledge that is derived through experience or observation. Today, the term ‘empirical’ has usually replaced ‘a posteriori’. Several former empiricists, like Locke and Hume, have argued that all knowledge is essentially a posteriori, and that a priori knowledge simply is not possible.

Following this line of dichotomous thinking, current linguistic theories are usually either usage-based models of language or non-usage-based theories. Linguistic formalists (nativists) assume that many of the most important linguistic representations are given biologically and do not need to be built up during language development. They just need to be linked to the particular language being learned. These approaches rely on a priori, classical categories in their descriptions of linguistic competence. The assumption is that underlying linguistic competence is a symbolic computational system that processes the relationships between abstract variables, which are basically all-or-none in nature (e.g. Chomsky, 1995; Marcus, 1998).

Usage-based models of language are theories seeking to ground language structure in the actual instances of language. Language structures emerge from language use. In this approach underlying representations that lack phonetic or lexical content are non-existent. Creativity in the usage-based models is accounted for as an ongoing expansion and extension of already existent structures or units. Language structures result from language use and novel uses shape the future structure of the linguistic system.

Barlow and Kemmer (2000) argued that the explanation of language acquisition is an important goal in both generative (non-usage-based) theories of language and usage-based theories of language. How is it that a child can acquire the grammaticality and facility of a language in such a short time? Generative theories hypothesise a language-specific faculty (NLF) within general cognition that accounts for universal structures, i.e. principles and parameters that determine the grammaticality of a given language. So, what a speaker actually needs to acquire is minimal, and this forms a minimalist programme (Chomsky, 1995). On the other hand, usage-based theories generally, and cognitive grammar specifically, hypothesise that language builds up a conventional inventory of units (including units that convey grammatical patterns) that a speaker can draw on and put together for communication. This inventory of units is based on hearing and using the language, and through use becomes entrenched (e.g. Langacker, 1987). These conventional units become the basis from which a speaker creatively communicates by extension of entrenched concepts and categories. In this approach, an immense cognitive structure of concepts and culture will lead to language description that reflects a fair amount of actual learning, forming a maximalist programme. Language acquisition is then viewed as the entrenching, building and extending of concepts through use. Tomasello said that in usage-based models of language ‘...all things flow from the actual usage events in which people communicate linguistically with one another. The linguistic skills that a person possesses at any given moment in time ... result from her accumulated experience with language across the totality of usage events in her life ... this theoretical freedom to identify these units on the basis of actual language use, rather than adult-based linguistic theory, is truly liberating’ (Tomasello, 2000, pp. 61–62). Langacker argued that ‘...putting together novel expressions is something that speakers do, not
grammars. It is a problem-solving activity that demands a constructive effort and occurs when linguistic convention is put to use in specific circumstances’ (Langacker, 1987, p. 65).

**Usage-based perspective on multicompetence**

These trends in monolingual linguistic theory have had serious bearing on bi and multilingual research. Although most of the research on bi and multilingualism treats language as an a priori system there have been an increasing number of attempts to approach bi and multilingual competence from a usage-based perspective (e.g. Döpke, 2000; Hall et al., 2006; Robinson & Ellis, 2008). However, these studies seem only to speculate about a usage-based approach. They usually do not use a usage-based database and analysis. Only a few studies rely on authentic usage-based data (e.g. Bybee, 2002; Firsch et al., 2001). The reason is that collecting data in real interaction between bi and multilingual speakers presents a lot of methodological challenges. Apart from the fact that such studies are time and resource-consuming, one has to deal with the issue of how representative the collected sample is. Another challenge to be faced is the question of what extent this type of data is appropriate for certain populations.

There is another problem with the usage-based approach. It overemphasises the role of frequency in the acquisition process and data analysis, and occasionally misinterprets data referring to individual learner differences (e.g. Bybee & Hopper, 2001; Hall et al., 2006; Firsch et al., 2001). New information is always processed through existing information: incoming experience filters through prior experience resulting in salience that dominates language processing (e.g. Giora, 1997, 2003). Salience, however, depends not only on frequency but also on familiarity, conventionality and accessibility. Frequency data can sometimes be misleading if those other factors affecting salience are ignored. On the other hand, individual learner differences do exist. We need to make a distinction between collective salience and individual salience. Kecskes (2008) argued that collective salience belongs to a speech community and is based on the speech community’s collective, generalised, prior experience, while individual salience is possessed by individual speakers who concretely operationalise collective salience through their actual individual experience. Collective salience is the core of the use of a particular system of signs (language) and relies on multiple occurrences, familiarity and accessibility. The qualitative difference between languages is based not only on the differences in the NLF (e.g. English grammar versus Chinese grammar) but also in collective salience that constitutes the core of culture tied to the particular language system (BLF).

Recent approaches to language, multicompetence and second language acquisition seem to exaggerate the role of the sociocultural environment and deny the active role of the linguistic system in reflecting the sociocultural environment. Generative approaches have overemphasised the importance of the linguistic system while sociocultural views have exaggerated the role of extra-linguistic factors in meaning production and comprehension. The truth is in between. Language use is a social activity. Consequently, the meaning of the system of signs makes sense only in a sociocultural environment. But this is a two-way street, because language also shapes social interaction to some extent.

Nobody thinks that single language codes are static. Linguistic science has always recognised that languages keep changing both synchronically and diachronically.
Dynamism of both NLF and BLF has never been questioned. Knowledge keeps changing in the mind. New pieces of information result in new neural and knowledge connections. However, regularity and variability go hand in hand. Change does not mean irregularity. It is probably true (although never proven) that the brain does not identify any particular language such as Russian or French, either a L1 or a L2. Neuralinguistic studies (cf. Damasio, Tranel, Grabowski, Adolphs, & Damasio, 2004; Ingvar, 1983) suggested that there is no single site for language in the brain but it is scattered all over the distinct parts of the brain. A specific common neuronal substrate underlies the faculty of language (which must be considered as the sum of single subcomponents, like articulation, memory, etc.), independently of single language codes (Videsott, 2008). Although this may be a factor, we are talking about science, whose goal is to spotlight certain issues that are important for mankind in the universe. The brain may not know a language that we call ‘German’, but we researchers try to describe a particular amount and type of knowledge that serves for communication among the members of a particular speech community in a systematic way. Researchers look for systematically organised ways to better know the world and our own physical body. Followers of usage-based approaches prefer to depict the human mind as a pattern recogniser, while generativists describe it as a rule-following logical calculator. However, the mind is neither one nor the other but a combination of the two.

As noted above, variety is inseparable from regularity. Neither makes sense without the other. Variety presupposes the existence of separate and definable entities. We must agree with Leibniz (1976 [1679]): ‘... si nihil per se concipitur, nihil omnino concipietur’ (‘...if nothing can be understood by itself nothing at all can ever be understood’). The reason we can speak about a language or a culture is that although these entities have fuzzy boundaries they are still definable. They can be defined because there are qualitative differences between them. Meanings of words or expressions can be determined because they encode the history of their use in actual situational context and sociocultural encounters. Words of a particular language can create context because they encode prior situation context in which a speaker have used them. When ‘shut up’ or ‘license and registration, please’ are uttered without any actual situational context, these expressions will create a situational context in the mind of hearers because of their prior experience with the lexical units. This relative regularity encoded in lexical units of a language changes diachronically while variety changes synchronically. They are two sides of the same phenomenon. From this perspective it sounds redundant to suggest replacing the notion of language groups with that of ‘communities of practice’ (e.g. Chaiklin & Lave, 1993; Hall et al. 2006).

Conclusion

Becoming a multilingual requires a fundamental reorganisation of the entire conceptual and language system, not just the acquisition of linguistic knowledge (NLF). This reorganisation has serious consequences for the use of each language of the multilingual person and for cognition in general. These changes are both quantitative and qualitative.

Multicompetence is a dynamically changing state of the mind that is characterised by the development of one or more additional language faculties (NLF) and a qualitative change in the common cognition part of the BLF that serves as sociocultural
background knowledge for the use of more than one linguistic code. The crucial issue here is that while the NLFs (linguistic code systems) are kept separate, the common cognition parts of the BLF are the same for each language channel. So multilingualism primarily appears to be a conceptual rather than a linguistic issue. It is not the languages that are integrated but the conceptual system. Bi and multilinguals have one conceptual system that operates two or more language channels.

The confusion about multicompetence is caused by the fact that it is actually much more than just ‘compound state of mind with two grammars’ (Cook, 1991, p. 112). The term is a bit misleading because ‘competence’ usually refers to grammatical knowledge as a consequence of the Chomskian competence—performance dichotomy. Knowledge of two or more languages is both about grammars and the conceptual system. The difference between monolingual and dual and multilanguage systems can be summarised as follows:

- Dual and multilanguage systems have one conceptual base that operates two or more language channels. Differences between language channels (e.g. English—Russian; French—Chinese, etc.) are qualitative rather than quantitative. Dialectal differences cannot be compared to differences between language systems because dialects are the concrete representations of the same language system.
- The difference of multilinguals from monolinguals derives not from the linguistically based means of their information processing systems but from the conceptually based content of those systems. The real difference is not what multilinguals do but how they do what they do (cf. Gumperz & Cook-Gumperz, 2005; Kecskes, 2007). The synergism of information and knowledge coming and going through more than one language channel results in a language-use mode that is both related to and distinct from the way that monolinguals use that language. Multilinguals may rely on this language-use mode regardless of the language being used (e.g. Kasper & Blum-Kulka, 1993; Kecskes, 2002).
- Language development in the L1 cannot be repeated in L2 or Lx because socialisation does not go hand in hand with language development in the new languages. The emergence of the new code system relies less on actual socialisation processes tied to L2 than on existing sociocultural knowledge and skills tied to L1. The bi and multilingual mind will differ from the monolingual mind in bringing together entities (cultural scripts, social frames, structures, etc.) that do not naturally belong together as is the case in L1 development and socialisation. The synergistic, qualitative changes reach a level beyond which the multilingual person will not use either language the way as a monolingual speaker uses that particular language. However, further research is needed to describe the process of becoming and being a multilingual, and that research should use both usage-based methods and cognitive experimental methods to discover the real nature of multilingualism.

References


