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## **Eidesstattliche Erklärung**

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## **Abstract**

*Keywords: linguistic relativity; linguistic determinism; linguistic categorization; cognitive linguistics; language, culture and cognition; thinking for speaking; language as spotlight; contrastive study; language awareness; multilingual classrooms;*

The thesis discusses the notion of linguistic relativity from a cognitive linguistic perspective. Its aim is to analyse the nature and extent of the interrelation between language, culture and cognition, and to discuss the implications of the findings for second language learning and teaching. A contrastive study of English and German illustrates that even speakers of two historically and culturally closely related languages may sometimes be guided in different ways by the languages they speak. In other words, it is argued that speakers of different languages pay attention to different aspects of reality and tend to view certain objects or events from different perspectives. The paper consists of three major parts. In the first part, the theoretical background is outlined: the theory of linguistic determinism is refuted; the renewed interest of cognitive linguists in linguistic categorization and linguistic relativity is explained; and five current approaches to linguistic relativity are presented. The comparison of English and German in part two is based on two of these approaches, i.e. thinking for speaking and language as spotlight. Various domains are analysed: time and space; metaphors; lexical and semantic categorization; structure of information; pragmatic aspects; and idioms. In the third part of the paper, several changes for the second language classroom are suggested: more attention should be paid to language awareness; a holistic approach to second language teaching should be chosen; and linguistic diversity in multilingual classrooms should be viewed as a valuable resource. Finally, it must be mentioned that it is not the aim of the paper to continue the unscientific nationalist tradition, in which linguistic relativity was misused to emphasise stereotypes and allegedly explain some kind of innate superiority of certain cultures and languages over others. A less deterministic but more sophisticated and objective approach, based on recent scientific evidence, is taken.





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## 1. Introduction

“*Wer fremde Sprachen nicht kennt, weiß nichts von seiner eigenen.*“

[“*Those who know nothing of foreign languages know nothing of their own.*”]

(Goethe 1821 [1907]: 18)

Many people who learn a second language report that they start ‘thinking’ and ‘dreaming’ in the new language. Some people returning home from a longer stay abroad – who got used to communicating in a language different from their first language – have difficulties expressing their thoughts in their mother tongue. And some people claim that their thoughts can be expressed more easily in one language than in another one. Even though these feelings are subjective, they should be taken seriously in a learner-centred approach to second language learning and teaching. Thus, it is the goal of this paper to examine the connection between language, culture and cognition from a scientific point of view.

For a long time, scientists and philosophers have tried to answer the question whether and to what extent language, culture and cognition are intertwined. Today, the notion of linguistic determinism, according to which language completely determines thought and restricts speakers’ cognitive abilities, has been abandoned for good reasons. For example, the fact that a particular word does not exist in a certain language would not prove that speakers of that language cannot imagine the concept behind the word. If this was the case, humans would never be able to learn new words or new languages. On the other hand, it cannot be denied that language has some influence on cognition. Every day, for instance, we are confronted with advertising language trying to convince us to buy certain products. Language is often used to draw our attention to the positive aspects of the product, and euphemisms are deployed to disguise the negative features. Similarly, politicians might call one and the same person a *terrorist* or a *freedom fighter*, depending on their attitude towards the person and the intention of their statement. Thus, language must indeed have some influence on cognition, and vice versa. In fact, language might be viewed as a part of cognition. The relevant question in recent research is to what extent and in what areas language, culture and cognition affect each other.

Even though cognitive science is a multidisciplinary approach, including aspects of psychology, philosophy, anthropology, and neuroscience, this paper primarily focuses

on linguistic categorization and other linguistic aspects of language, culture and cognition. A moderate version of linguistic relativity, according to which language influences – rather than determines – cognition, is advocated and serves as a basis for the following three research questions.

First, it is the aim of the paper to identify the nature and intensity of the interrelation between language, culture and cognition. In the first part of the paper the theoretical background will be outlined, and several traditional and current theories on the topic will be discussed. The connection between the structures of different languages on the one hand, and speakers' ways of organizing thoughts on the other hand, will be of particular interest.

The second aim is to narrow down the comparison to the two languages English and German, and to examine whether and in what areas speakers of these two languages might organize their thoughts differently. If differences between these two culturally and historically closely related languages can be found, this would strongly imply that there are also differences between other, less related languages.

The final objective of the paper is to point out the implications of these findings for language learning and teaching. Returning to the quote by Goethe, it is true that “those who know nothing of foreign languages know nothing of their own” (Goethe 1821 [1907]: 18). At some point, second language (L2) learners inevitably reflect on the structures, categories and ways of describing the world that are common in the L2 and in their first language (L1). In this process, learners sometimes compare the two languages and arrive at the rather subjective conclusion that in the L2 thoughts are expressed in an ‘atypical’ or ‘unnatural’ way. On closer examination, however, it is clear that speakers of different languages sometimes simply describe the world in different terms, and that there is no single ‘correct’ or ‘superior’ way of expressing thoughts. As Susanne Niemeier puts it,

[b]eing aware of how language works, how meaning is created, and how language is connected to culture and to our conceptualizations provides a different and deeper understanding of a foreign language and culture as well as of one's own language and culture, and thus potentially generates a different worldview (2004: 96-97).

This insight is of particular interest to language learners and teachers, and to increasingly multilingual and global societies worldwide. Thus, this thesis intends to raise awareness of the interconnection between language, culture and cognition, and the

consequences for language teaching. At this point, I want to mention explicitly that I do not at all have the intention to continue the unscientific nationalist tradition, in which linguistic relativity was misused to reinforce stereotypes and allegedly explain some kind of innate superiority of certain languages and cultures over others. A less sensational and deterministic but more nuanced and objective approach, based on recent scientific evidence, is proposed here.

## **2. Theory: Linguistic relativity – language and cognition**

In this part of the paper the development and the various interpretations of the linguistic relativity hypothesis will be summed up and discussed. In the literature, linguistic relativity has often been referred to as Sapir-Whorf hypothesis, even though Edward Sapir and Benjamin Lee Whorf never expressed their thoughts in terms of a hypothesis, and they never published any text together (cf. Hill & Mannheim 1992: 386ff). The term Sapir-Whorf hypothesis has “become widely known as shorthand for ideas held for a time by Sapir and divulged and popularized by Whorf” (Chapman & Routledge 2005: 239). Some authors distinguish between a strong version – i.e. linguistic determinism – and a weak version of linguistic relativity. Also Sapir and Whorf expressed their views in stronger and weaker terms, but they never explicitly formulated such a dichotomy. From a modern perspective, Wolff and Holmes criticize this strong-weak distinction and claim that it

oversimplifies the more complicated picture that is emerging in recent research on the relationship between language and thought. Linguistic relativity can now be said to comprise a ‘family’ of related proposals that do not necessarily fall along a single strong-to-weak continuum (2011: 253-265).

One reason for this more complex analysis of the relation between language and cognition in recent research is the rise of cognitive linguistics from the 1980s onwards. In contrast to the generative paradigm, cognitive linguistics is based on the idea that linguistic ability cannot be separated from the rest of cognition. Niemeier goes one step further and proposes that cognitive linguistics

has from its very beginning emphasized the fact that language, culture, and thought are inextricably intertwined, and that therefore it is not possible to analyze any one of them without taking the others into consideration. Much of our linguistic behavior can be shown to be based on extralinguistic experiences and cultural knowledge (2004: 95).

Thus, within the cognitive linguistic paradigm, some sort of linguistic relativity is predefined. It is the aim of this section to examine the relation between language, culture and cognition in detail, and to reveal the nature and extent of linguistic relativity. After this general discussion, a contrastive study of English and German will be presented in chapter 3. Once again, I want to draw the readers’ attention to the fact that no language is superior to any other language, and that basically “any thought can be

expressed in any language” (Deutscher 2011: 136). The difference between languages is, as it is argued here, rather that they categorize the world slightly differently, and that the speakers might thus focus on different aspects of reality. To put it in Jakobson’s words, “languages differ essentially in what they must convey and not in what they may convey” (1959: 236).

Before the topic can be discussed in more detail, however, some preliminary considerations about the differences of languages are essential. Subsequently, cognitive linguistics and the renewed interest in linguistic relativity will be explained, before the focus will be put on linguistic categorization. This will lead over to the current perspectives on linguistic relativity, and a discussion of their strengths and weaknesses. Eventually, linguistic relativity will be viewed from the perspective of second language learning and teaching, and the findings of chapter two will be summed up.

## **2.1. Some preliminary considerations**

Even though linguists have found general and typological similarities between the up to 7,000 languages of the world (cf. Boroditsky 2010: 1), languages still differ to a greater or lesser extent. These differences have positive as well as negative consequences. On the one hand, linguistic diversity has long been regarded as a vexation. For example, the Babylonian confusion of languages is understood as a punishment by god, in order to impede universal communication. This point of view is very reasonable, as language is supposed to enable communication between people, and linguistic diversity complicates communication. On the other hand, the differences between languages can be appreciated as a manifestation of human creativity and cognition, as language does not only serve as a medium of communication, but also as a medium of representation of the world. And it is exactly this semantic-cognitive dimension of language that makes human language unique. Language assists people in comprehending and categorizing the world. In other words, it guides people in the process of formulating thoughts. And from this perspective, it can be argued that linguistic diversity is very valuable (Trabant 2009: 59). As Trabant puts it, “[j]ede Sprache gewinnt der Welt neue Aspekte ab, die eine andere Sprache nicht ‘sieht’ oder nicht ‘denkt’ [every language grasps new aspects of the world, which other languages do not ‘see’ or ‘think about’]” (2009: 59). Radden and Dirven define language as a

cognitive achievement: it is the solution that generations of speakers of a speech community have found to structure their thoughts with the intention to communicate them to other people” (2007: xi).

In other words, linguistic diversity reflects people’s cognitive ability to construe the world and their experience in a plethora of different ways. Language guides speakers’ attention and speakers of different languages construe the world in somewhat different ways. Evidence for the connection between language, culture and cognition will be provided later. In the following chapter, the rise of cognitive linguistics and its relevance for the discussion of linguistic relativity will be outlined.

## **2.2. Cognitive linguistics – language and cognition**

In order to understand the current approaches to linguistic relativity, it is essential to recognize that the discipline of linguistics has changed considerably since the time when the first theories about linguistic relativity were published. Today, cognitive linguists look at linguistic relativity from a different perspective and are interested in somewhat different questions than were Sapir and Whorf. Thus, in this chapter the basic principles and hypotheses of cognitive linguistics that are relevant to the discussion of linguistic relativity will be summarised.

According to Croft and Cruse (2004: 1-4), cognitive linguistics is based on three major principles. First, as mentioned above, language is not seen as an autonomous faculty in the mind, but rather as part of the general cognitive structures of the mind. Thus, cognitive linguists would not analyse language isolated from other cognitive processes. Second, cognitive linguists support the idea that “grammar is conceptualization” (Croft & Cruse 2004: 1). In other words, grammar is not only regarded as pure form, but it is assumed that grammar carries meaning. It is claimed that every linguistic unit is meaningful. The third argument is that “knowledge of language emerges from language use” (Croft & Cruse 2004: 1). This means that semantic structures and categories can only be learned if the person gets actively involved in communication. In order to use semantic constructs and categories appropriately, language users need to draw on their experience.

These assumptions deviate from the traditional approach, which claimed that thought and reason are abstract and not necessarily embodied in an organism. George Lakoff describes the traditional view in the following way:



Meaningful concepts and abstract reason may happen to be embodied in human beings, or in machines, or in other organisms – but they exist abstractly, independent of any particular embodiment (1987: xi).

In contradiction to this view, he then proposes a new approach according to which

meaning is a matter of what is meaningful to thinking, functioning beings. The nature of the thinking organism and the way it functions in its environment are of central concern to the study of reason (1987: xi).

This line of argument constitutes a radical paradigm shift. While both approaches take categorization as the essential aspect of making sense of the world and of experience, their definitions of categories differ greatly. While on the traditional view membership of a category was defined by universal necessary and sufficient features, in the new view, “our bodily experience and the way we use imaginative mechanisms are central to how we construct categories to make sense of experience” (Lakoff 1987: xii). New approaches to categorization are crucial to the understanding of linguistic relativity and will be discussed in the next chapter.

In their introduction to cognitive linguistics, Evans and Green mention that

an important reason behind why cognitive linguists study language stems from the assumption that language reflects patterns of thought. Therefore, to study language from this perspective is to study conceptualization. Language offers a window into cognitive function, providing insights into the nature, structure and organisation of thought (2006: 5).

This quote illustrates the interest of cognitive linguistics in linguistic relativity. If language does indeed reflect patterns of thought, it would not be a surprise to reveal that speakers of different languages conceptualize the world in somewhat different ways. Evans and Green point out that cognitive linguistics is very much concerned with conceptualization, and other authors claim that “conceptualization operates on various units of conceptual structures, such as categories, cognitive models, prototypes and stereotypes, frames, domains, and mental spaces” (Dirven, Frank & Pütz 2003: 4-5). A discussion of linguistic relativity must be concerned with all these issues.

There are several different cognitive linguistic theories, but they all share two important assumptions about the organization of language. First, Ronald Langacker, to whom the approach of cognitive grammar is attributed, stated that

[t]he most fundamental issue in linguistic theory is the nature of meaning and how to deal with it. I take it as self-evident that meaning

is a cognitive phenomenon and must eventually be analyzed as such”  
(1987: 5).

In other words, he stresses the symbolic function of language and its relation to cognition. Second, “the cognitive processes that enable speakers to understand and produce language represent the acute specialization of more general cognitive abilities” (Achard & Niemeier 2004: 1). What Achard and Niemeier want to express is that language is not an autonomous faculty, but part of the more general cognitive abilities. This assumption implies that language is connected to other parts of cognition. Both these assumptions indicate that there is a close connection between language and cognition. Consequently, the following two questions arise: To what extent do languages reflect speakers’ cognitive processes? And do different languages suggest different interpretations of the word?

The two major areas of cognitive linguistics that are relevant to the investigation of linguistic relativity are cognitive lexical semantics and cognitive approaches to grammar. It is the primary objective of cognitive grammar to explain the association between meanings and forms. As Achard puts it, “All linguistic expressions are symbolic units that contain a phonological and a semantic pole. All units are thus meaningful.” (2004: 174). Langacker claims that “this is certainly a more attractive vision than the standard view of grammar as pointless drudgery arbitrarily imposed, hence very hard to learn” (2001: 6). What is more, Langacker suggests that the meaningfulness of grammar should be recognized and that this can be achieved by “adopting a conceptualist semantics that properly accommodates construal, i.e. our ability to conceive and portray the same situation in alternate ways” (2001: 6). If one and the same situation can be perceived and described in different ways even within one language system, it is plausible that different languages might tend to focus on different aspects of a situation or an object and thus influence their users’ cognitive processes in various ways. This argument supports the linguistic relativity hypothesis. Niemeier suggests that metonymies are an interesting field of research in this respect, as

metonymies in different languages concentrate on different salient aspects of the world and thus contain different culturally induced concepts. This means that analyzing metonymies may present an inroad to culturally induced conceptualizations (2004: 112).

In quest of evidence of linguistic relativity, categorization and conceptualization are very promising areas of investigation. Langacker describes language as a “structured

inventory of conventional linguistic units” (2000: 8). He argues that these units, which he calls “cognitive routines” (2000: 8), are limited to

semantic, phonological, and symbolic structures which are either directly manifested as part of actual expressions, or else emerge from such structures by the processes of abstraction (schematization) and categorization [...]. Linguistic knowledge is not conceived or modeled as an algorithmic device enumerating a well-defined set of formal objects, but simply as an extensive collection of semantic, phonological, and symbolic resources which can be brought to bear on language processing (2000: 8-9).

John Taylor also draws attention to the idea that languages differ in their conceptualizations of the world. To be more precise, he argues that learners of second languages might have difficulties learning the second language as there might be

conceptual categories which are not found in the learner’s mother tongue, or which are not completely isomorphous with those of the learner’s mother tongue [...] It follows that a pedagogical grammar will need to be inherently contrastive. CGE [Cognitive Grammar of English] is not overtly contrastive, that is to say there are no explicit comparisons between English and any other language. It is, however, covertly contrastive, in that the treatment of the issues is informed throughout by an awareness of the idiosyncrasies of English vis-à-vis certain other languages (Taylor 1993: 213).

Taylor mentions the fact that certain conceptual categories can be found in one language, but not in another one. This raises the question whether speakers of the two languages focus on different aspects of world experience by default. Taylor makes clear that cognitive grammar is based on the assumption that language does have an influence on cognition.

At this point it must also be mentioned that in cognitive linguistics any linguistic expression refers to one or more knowledge structures which Langacker calls “cognitive domains” (1987: 147-166), and which share important similarities with Lakoff’s idealized cognitive models (cf. Lakoff 1987). These concepts derive from the idea that language reflects the world as it is construed by humans and that there is no universal god’s-eye point of view.

To sum up, cognitive linguistics is probably the first linguistic model that is not only a fully developed grammatical model, but also covers “functional, pragmatic, interactive and social-cultural dimensions of language in use” (Dirven, Frank & Putt 2003: 3). This explains the renewed interest in linguistic relativity. In this respect, cognitive linguists

are particularly interested in metaphorical use of language (cf. Lakoff 1980), in categorization and mental categories (cf. Lakoff 1987), in cognitive as well as social aspects (cf. Gumperz & Levinson 1996), and in the cognitive process of “thinking for speaking” (cf. Slobin 1991 and 1996). These points of analysis will be discussed in the following chapters, starting with categorization and conceptualization, since “an understanding of how we categorize is central to any understanding of how we think and how we function, and therefore central to an understanding of what makes us human” (Lakoff 1987: 6).

### **2.3. Linguistic categorization and conceptualization**

In the discussion about linguistic relativity, categorization has always been an integral part, as “most of our words and concepts designate categories” (Lakoff 1987: xiii), and “most if not all of our thought involves these categories” (Lakoff 1987: xvii). When Whorf published his ideas about language, thought and reality, he claimed that the

categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds – and this means largely by the linguistic systems in our minds. We cut up nature, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way – an agreement that holds throughout our speech community and is codified in the patterns of our language (Whorf 1940 [1956]: 213).

This oft-cited passage can be regarded as the centrepiece of Whorfianism. According to this view, the categorization on which we base our conceptualization of the world is imposed upon us “by the categories encoded in the language that we happen to have been brought up with” (Talyor 2003: 3). Today, the idea that there are pre-existing meanings which are independent of language and waiting to be named is denied. Reality is rather seen as a “diffuse continuum, and our categorization of it is merely an artefact of culture and language” (Taylor 2003: 6). Similarly, Lakoff argues that “[h]uman categories are not objectively ‘in the world’, external to human beings. At least some categories are embodied” (1987: 56). Probably the most famous example in this respect and a controversial issue in linguistic literature is the categorization of colour terms. Colours do not have clear boundaries. Looking at a rainbow, one colour gradually merges into the next colour, and the definition of the point where one colour starts and

the other one ends depends on language, conceptualization and culture. Every language categorizes colours in somewhat different terms. There are several examples of cross-linguistic differences. For instance, the English term *brown* does not have a single equivalent in French. The colour-continuum that is described as *brown* in English is divided up into three terms in French, i.e. *brun*, *marron*, and in some cases even *jaune*. Certainly, people who speak English are also able to perceive the different shades of brown, but it may be argued that the French language draws its users' attention to a more detailed conceptualization of this colour or these colours. In Russian, for instance, голубой 'goluboy' and синий 'siniy' are not regarded as two shades of the same colour, i.e. light and dark blue, but rather as two different colours (cf. Deutscher 2011: 69). According to Lakoff, "color categories [...] are determined jointly by the external physical world, human biology, the human mind, plus cultural considerations" (1987: 56). In other words, language is the manifestation of the complex interplay of cognition, world experience and culture (cf. Ji, Zhang & Nisbett 2004: 57-65).

As demonstrated above, categories – at least some – are not objectively there, but they are created by human cognition. Considering the organization and structure of these categories, there has been a dramatic change in linguistic theory. In the classical view, reaching back to Aristotle, a distinction was drawn between the "essence of a thing and its accidents. The essence is that which makes a thing what it is, [...] accidents are incidental properties, which play no part in determining what a thing is" (Talyor 2003: 20). For example, essential properties of the category *car* would be that it has *four wheels*, it has an *engine or a motor*, it has a *stirring wheel*, and that *it transports people*. Only if it has all these features, it is categorized as a car. Incidental properties would be the *colour of the car*, the *number of seats*, the *type of fuel* it uses, or the *brand*. Incidental properties may vary greatly, but they are not relevant to the categorization as such. Whether the car is green or red, whether it has 2 or 5 seats, whether it runs on diesel or gasoline, or whether it is a Ford or a Ferrari, it is still a car, as long as it has all the essential properties. What is more, according to the classical approach, the properties are binary, there are clear boundaries between categories, and all members of the same category have equal status (cf. Taylor 2003: 21). However, this definition of categories does not capture the complexity of the real world. For instance, nobody can sit in a matchbox car, but nevertheless it is categorized as a car. Many railroad cars do not transport people, but they carry cargo. Also, railroad cars usually do not have a

stirring wheel. Nevertheless they are called cars. Another critical question is whether a car actually stops being a car as soon as one wheel or the engine is removed.

All these examples demonstrate the weaknesses of the classical approach to categorization. Taylor suggests that people do not construct categories by assembling all the classical defining features and components, but that “we apprehend and learn categories (at least, many of them) holistically, in the context of our interaction with the world” (Taylor 2003: 38). Thus, language does not simply describe what is there in the world; it is part of our conceptualization of the world. And this in turn means that language, culture and cognition cannot be analysed separately from each other.

In 1978, in *Principles of Categorization*, Eleanor Rosch proposed a new approach, which she termed the theory of prototypes and basic-level categories (cf. 1978 [2004]). According to her experiments, there is always a best example within every category. This is what she calls a *prototype*. All the other members can be compared to this prototype, and depending on how much they deviate from the prototype, they are classified as central or peripheral members. The famous example of the category *birds* illustrates how much prototypes depend on culture. For example, in Germany a *sparrow* would be regarded as a prototypical bird, whereas most US-Americans would claim that a *robin* is a prototypical bird. This difference results from the trivial fact that robins are much more frequent in Northern America than in Germany (cf. Niemeier 2004: 104). More interestingly, however, in both languages and cultures, a penguin is also classified as a *bird*, but as it looks very different from both a sparrow and a robin, and it cannot fly, it is rather regarded as a peripheral member of this category.

Another important concept of categorization is the notion of basic-level categories. Any entity can be categorized on various levels. For example, *Dell Inspiron 17” laptop*, *laptop*, *electronic device* and *object* are four equally true ways of referring to the thing on which this thesis is written. Each term is more inclusive than the preceding one. It is argued that there is a level of categorization that is “cognitively and linguistically more salient than the others. This is the basic level of categorization – the level of which (in the absence of reasons to the contrary) people normally conceptualize and name things” (Taylor 2003: 50). In the example mentioned above, the basic level would be *laptop*. According to Taylor, basic level terms can be easily identified as they are very frequently used and are structurally short and simple. Terms below the basic level are most often compounds, which is true for *Dell Inspiron 17” laptop*. Interestingly, Zubin

and Köpcke found that there is a certain correlation between the position in a categorization hierarchy and grammatical gender in German. The terms above the basic level are described as “conceptually vague and undifferentiated” (Zubin and Köpcke 1986: 146), and they tend to be neuter. At the basic level and below, on the other hand, the meanings of nouns are “richly specified both perceptually and functionally” (Zubin and Köpcke 1986: 146), and the nouns tend to be either masculine or feminine. For example, the German nouns *Musikinstrument* ‘musical instrument’, *Werkzeug* ‘tool’, *Fahrzeug* ‘vehicle’, *Metall* ‘metal’, or *Gemüse* ‘vegetable’ are neuter, whereas the names of specific instruments, tools, vehicles, metals and vegetables are generally masculine or feminine (cf. Zubin & Köpcke 1986: 147). Thus, grammatical gender may have some influence on speakers’ perception of basic level hierarchies.

Lakoff mentions that “things that are very close to prototypical members will most likely be in the category and be relatively good examples. And as expected, the boundary areas will differ from language to language” (1987: 65). Thus, prototype theory might provide valuable evidence for linguistic relativity. Certainly, this new perspective on linguistic categorization is a dramatic change, not only in terms of cognition and semantics, but also in terms of grammar and the very structure of language:

Since we understand the world not only in terms of individual things but also in terms of categories of things, we tend to attribute a real existence to those categories. We have categories for biological species, physical substances, artifacts, colors, kinsmen, and emotions and even categories of sentences, words, and meanings. We have categories for everything we can think about. To change the concept of category itself is to change our understanding of the world. At stake is our understanding of everything from what a biological species is (see chap. 12) to what a word is (see case study 2) (Lakoff 1987: 9).

In fact, the definition of basic elements of language, such as *word*, *noun* and *verb*, need to change considerably in the light of prototype theory. For example, it is extremely difficult to give an appropriate definition of the concept *word*. Certainly, it is clear that in the sentence *The name of his wife is Caroline*, *wife* is a word. However, there are more complicated examples. Considering the expression *ex-wife*, for instance, it is not so clear whether it represents one word or two words. Similarly, contractions, such as *that’s*, may be regarded either as one or two words. Also, the question whether *car* and *cars* are two different words or two forms of the same word, i.e. singular and plural, arises (cf. Taylor 2003: 200ff). The use of affixes differs greatly between the languages

of the world, and learning a new language may require the learner to reconsider what a word is. The fact that intuitively clear-cut cases of words exist alongside a number of not so easily identifiable cases suggests that words form a prototype category, with central and peripheral examples. The same is true for word classes and other grammatical categories. Lakoff claims that “[l]inguistic categories, like conceptual categories, show prototype effects. [...] I take the existence of such effects as prima facie evidence that linguistic categories have the same character as other conceptual categories” (1987: 67). Thus, the structure of grammatical categories has to be reconsidered. Lakoff predicts that several other traditional views of language would have to be given up too: “The mind is separate from, and independent of, the body. [...] There is a correct, God’s eye view of the world – a single correct way of understanding what is and is not true. [...] All people think using the same conceptual system” (1987: 9). In other words, if thought is embodied; if there is no universal truth; and if even speakers of the same language community may use different conceptual systems, it might well be possible that languages and categorization have an influence on cognition and vice versa.

Lakoff suggests that human cognition is “essentially a matter of both human experience and imagination – of perception, motor activity, and culture on the one hand, and of metaphor, metonymy, and mental imagery on the other” (1987: 8). And exactly these latter, more abstract mental categories and conceptualizations are of particular interest in the discussion of linguistic relativity. According to Lakoff,

[t]hought is embodied, that is, the structures used to put together our conceptual systems grow out of bodily experience and make sense in terms of it; [...] Thought is imaginative, in that those concepts which are not directly grounded in experience employ metaphor, metonymy, and mental imagery – all of which go beyond the literal mirroring, or representation, of external reality. [...] Thought has gestalt properties and is thus not atomistic; concepts have an overall structure that goes beyond merely putting together conceptual ‘building blocks’ by general rules (1987: xiv-xv).

Lakoff suggests that abstract concepts are described in terms of metonymy and metaphor. As languages do not use the same mental imagery for all concepts, it may be argued that languages provide different perspectives on the world. Thus, special attention will be paid to differences in metonymy, metaphor and mental imagery in different languages in the following chapters.



Before that, however, some other aspects of categorization will be analysed. For example, the title of Lakoff's book *Women, Fire and Dangerous Things* gives an insight into human cognition and categorization. In chapter one, he states that "[m]any readers, I suspect, will take the title of this book as suggesting that women, fire, and dangerous things have something in common – say, that women are fiery and dangerous" (1987: 5). The cognitive process behind this assumption is the typical line of inference from conjunction to categorization and to commonality. To put it differently, the three items *women*, *fire* and *dangerous things* are presented together and people automatically group them as members of the same category. And being members of the same category implies that they must have something in common (cf. Lakoff 1987: 5).

Another interesting prototype effect can be observed in the study of markedness. For example, considering the contrastive pair of *old-young*, some kind of asymmetry can be identified. For instance, if someone asks *How old are you?* they do not suggest that the person being asked is old. However, if they ask *How young are you?* they suggest that the person being asked is young. Thus, only one member of the pair *old-young* has a neutral meaning. As *old* occurs in contexts where the contrast is neutralized, it is the unmarked member of the contrast set (cf. Lakoff 1987: 60).

Taking this theory one step further to grammatical aspects of language, a difference can be found between English and German with regard to simple and progressive present tense. In contrast to English, German does not distinguish between simple and progressive forms. For example, take the German sentence *Wir spielen Tennis*. The sentence can be translated either as *We play tennis*, or as *We are playing tennis*. Thus, English speakers have to distinguish between these two forms due to the grammatical structure of their language. On the other hand, if German speakers want to highlight that the process is going on at the moment of speaking, they can explicitly add the word *gerade*, for example, and say something like *Wir spielen gerade Tennis*. However, German speakers are not so much obliged to draw their attention to the fact whether the process is going on at the moment of speaking. The unmarked expression in German would be *Wir spielen Tennis*. English speakers, however, have to focus on whether the process is going on at the moment of speaking, as in English there is no unmarked expression.

To sum up, Lakoff claims that "we organize our knowledge by means of structures called idealized cognitive models, or ICMs, and that category structures and prototype

effects are by-products of that organization” (1987: 68). It will be argued in this paper that the mother tongue may have an influence on these ways of conceptualizing the world and that learning a second language may imply learning a new way of conceptualizing.

As a final point in this chapter it must be mentioned that cognitive linguists, such as Lakoff, Langacker and Talmy deny the existence of a distinction between linguistic knowledge and encyclopedic knowledge. The latter refers to general world knowledge, independent from linguistic knowledge. From a cognitive linguistic perspective, the distinction is unnecessary, as it is assumed that all knowledge is integrated in the mind. Taylor mentions that the distinction is difficult to maintain, as the “encyclopaedic knowledge is crucially involved in the way in which words are used” (2003: 87). Considering what was mentioned above about colour categorization, the meanings of the colour terms derive from the linguistic context, human cognition, and world experience.

are at the same time facts about human cognition and about language. Thus, language must be analysed in the context of our interaction with our environment and with other people:

On this view, a clean division between linguistic and non-linguistic faculties, between linguistic facts and non-linguistic facts, between a speaker’s linguistic knowledge proper and his non-linguistic knowledge, between competence and performance, may prove to be both unrealistic and misleading (Taylor 2003: 16).

It is true that a linguistic form only makes sense if it is viewed in the context of other cognitive structures, which extend beyond the language system as such. For example, the term *April* can only be understood in the context of the calendar year which is divided into twelve months. In other words, *April* is understood against the semantic domain of the twelve-month cycle. Another interesting example would be German term *Zivildienst*, which does not have a corresponding term in English and can only be understood against the system or domain of general conscription in Austria. These examples demonstrate that language, cognition and culture are very closely intertwined.

On a more basic level, what Langacker calls “basic domains” (1987: 148), might also provide evidence of linguistic relativity. According to Langacker, basic domains are concepts of space and time that cannot be reduced to more primitive structures, as well as sensory experiences like taste, colour and temperature (cf. Taylor 2003: 88). In

language, abstract domains are often described with the aid of basic domains, and different languages may map different basic domains on certain abstract domains. This might be evidence for the claim that every language reflects the world from a different point of view. More details will follow later, in the contrastive study of English and German.

In the following chapters, the development and the current trends in the research on linguistic relativity will be summarised, and the insights into categorization and conceptualization discussed in this chapter will be essential to understand these concepts.

#### **2.4. Origins and development of the linguistic relativity hypothesis**

The linguistic relativity hypothesis covers three main ideas. The first assumption is that languages may differ significantly in the meanings of their words and constructions. This hypothesis is not only supported by linguistic, but also by anthropological and psychological studies of word meaning. Second, linguistic relativity assumes that the semantics of a language can influence the way in which its speakers conceptualize and perceive the world. The extreme version of this view, according to which language completely shapes thought, is termed linguistic determinism. Finally, connecting the first two assumptions leads to the conclusion that speakers of different languages think differently (cf. Wolff & Holmes 2011: 253-265). In this chapter, the development of the linguistic relativity hypothesis will be presented.

Even though the linguistic relativity hypothesis is attributed to Benjamin Lee Whorf, scholars before him voiced similar views. Penn mentions that various aspects of linguistic relativity were proposed before the eighteenth century, but the explicit statement that a language influences the thought of its speakers was not mentioned until Hamann and Herder in the second half of the 18<sup>th</sup> century (cf. Penn 1972: 40-56). Later, Wilhelm von Humboldt in “Über die Verschiedenheit des menschlichen Sprachbaues” (Humboldt 1836) claimed that due to the difference in the internal structure of language, the world view of one people would differ considerably from that of another people. However, until the middle of the 20<sup>th</sup> century, the time when Whorf published his articles, only a small group of anthropologists and linguists were concerned with the

idea that thought may be influenced by language. Among these were Boas and Sapir (cf. Penn 1972: 10, Sapir 1921).

As mentioned above, most of the scholars who studied linguistic relativity expressed their views in stronger and weaker terms, but they did not explicitly distinguish between a strong and a weak version of linguistic relativity. One of the few instances where Whorf states his hypothesis explicitly reads as follows:

The background linguistic system (in other words, the grammar) of each language [...] is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions (1940 [1956]: 212).

As this formulation is still rather vague, Penn raises the following question:

[D]id he mean to assert that the grammar of a language determines ideas and limits the range of mental activity? Or did he mean to assert that grammar of a language merely influences an individual's ideas, mental activity, analysis of impressions? (1972: 14).

Unfortunately, no statement can be found in Whorf's writing which clears up this ambiguity. Schlesinger mentions that "Whorf all too often expresses himself in a rather vague and ambiguous fashion" (1991: 16). Thus, it is no surprise that for a long time researchers disagreed on what exactly the claims of Whorf's hypothesis were. The same ambiguity can be found in the works of other major proponents of the idea, such as Herder, Humboldt and Sapir. According to Penn, none of them makes it clear "which position he intended to take, but all [...] did at some point advocate the extreme position in their respective works" (1972: 15).

Interestingly, for a long time the deterministic version was supported by many linguists, even though it can be disproved so easily. Guy Deutscher mentions that

there is one toxic fallacy that runs like quicksilver through all the arguments [...], and this is the assumption that the language we happen to speak is the prisonhouse that limits the concepts we are able to understand (2011: 147).

For example, the claim that the lack of a word for a certain concept in a language would imply that the speakers of that language are not able to understand the concept is simply incorrect. If this claim was true, people would never be able to learn new words in their first language or even a second language. Similarly, it is simply not true that the lack of a tense system constrains speakers' understanding of time. What all these contentions have in common is that they are based on the idea that

the concepts expressed in a language are the same as the concepts its speakers are able to understand, and that the distinctions made in a grammar are the same as the distinctions the speakers are able to conceive (Deutscher 2011: 147).

At this point, a famous but rather illogical thought experiment from literature shall be mentioned, *Nineteen Eighty-Four* (Orwell 1949 [1983]). In George Orwell's novel, the political rulers overestimate the power of language. They believe that political resistance could be completely eliminated if only all words of dissent would be deleted from the vocabulary: "In the end we shall make thoughtcrime literally impossible, because there will be no words in which to express it" (Orwell 1949 [1983]: 124). If it was that simple, we could abolish the words *war*, *envy* and *hatred*, and make the world a better place. However, this would be nothing more than a naive illusion, as the relation between language, cognition and the external world is much more complex. The concepts of *war*, *envy* and *hatred* would still exist, and people would still be able to think and talk about them, even if there were no words for them. People could either circumscribe their thoughts, or if need be, they could easily invent new words for these concepts.

In more moderate terms, however, it is true that people living in a world like Orwell's *Nineteen Eighty-Four*, but also in the real world of today, are often influenced by the language of propaganda and advertisement. For example, in Orwell's novel, the "Ministry of Love" is responsible for war (cf. Orwell 1949 [1983]: 26). The name of the ministry is misleading as love is in fact the opposite of war. This proves that to some extent, language can be used, and is often used, to influence cognition and to draw language users' attention to certain aspects of reality. Thus, it may also be possible that the language we speak has an influence on the way we think, and that different languages draw their users' attention to somewhat different salient aspects of reality.

Although linguistic relativity "has not been proven [sic] right, neither has anyone proved [sic] it wrong, at least in its milder version" (Chapman & Routledge 2005: 130). For the rest of this paper, the term *linguistic relativity* is used in its moderate sense. In other words, it is claimed that language does not constrain cognitive abilities, but that it is closely linked to them and affects them to greater or lesser extent. As Wolff and Holmes put it, there is support for the view that language can make "certain distinctions difficult to avoid" (2011: 253), and "that language can augment certain types of thinking" (2011: 253). Also, they claim that even though "literature on linguistic

relativity remains contentious, there is growing support for the view that language has a profound effect on thinking” (Wolff & Holmes 2011: 253). In the following chapter, some current approaches to linguistic relativity will be presented.

## **2.5. Current approaches to linguistic relativity**

The renewed interest in this topic derives from new insights into the ways in which language might affect thought. On the one hand, many scientific domains no longer support the idea that knowledge can be compartmentalised. Instead, a more holistic approach has been established. Second, linguists have abandoned the idea that language is an autonomous faculty. They have realized that language directly interacts with other mental faculties. Gumperz and Levinson claim that “culture, through language, affects the way we think, especially perhaps our classification of the experienced world” (1996: 1).

Kecskes and Papp point out that “bilingualism is the fundamental problem of linguistics” (2000: 120), but for a long time language has rather been analysed from a monolingual point of view. However, in recent years there have been attempts to revise and rethink linguistic relativity (cf. Macnamara 1991; Gumperz & Levinson 1996; Slobin 2000; Boroditsky 2003, Bennardo 2003; Pederson 2010). According to Kecskes and Papp, the

multilingual perspective allows us to look inside the real ‘deep structure’ of language which is not just a collection of rules and words but an extremely complex and unique phenomenon in which human mind and the outside world meet (2000: 121).

Relatively little is known about the multilingual mind in comparison with the monolingual one, but two important claims seem to be true. First, a multilingual “is not two or more monolinguals in one body” (Kecskes & Papp 2000: 121). In other words, if a person speaks two or more languages, these language systems are not independent of each other. Second, in order to explain the relationship of language and cognition in multilinguals, the acceptance of a moderate form of linguistic relativity seems to be essential. Thus, the relationship between two or more language systems in the mind, as well as the relation between language and cognition need to be reconsidered.

It has long been assumed that the relation between language and thought is very tight, while the one between thought and the world is loose. However, recent research in

cognitive sciences suggests a different pattern: a loose connection between language and thought, but a relatively strong one between thought and the world (cf. Wolff and Holmes 2011: 253-265). This is in line with Jerry Fodor's language of thought thesis and the notion of "mentalese". (cf. Fodor 1975; Chapman & Routledge 2005: 87). Mentalese is regarded as a medium of thought for reasoning, categorization and memory. This conceptual representation is viewed to be independent of the representations that are used to specify the meanings of words and grammatical constructions in language (cf. Wolff and Holmes 2011: 253-265). Even though language and thought might not be as directly related as previously assumed, a more holistic approach to language, cognition and culture is advocated in cognitive linguistics.

While linguistic determinism has been abandoned, the weaknesses of Whorf's reasoning have been valuable for the progress of science. Two fundamental errors need to be avoided in current and future research. First, "Whorf's addiction to fantasies unfettered by facts has taught us that any alleged influence of a language on speakers' minds must be demonstrated, not just assumed" (Deutscher 2011: 148). The fact that two languages use different structures to express certain aspects of reality does not necessarily mean that their speakers think differently. If there is a reason to assume that speakers of one language might think differently from speakers of another language, this assumption must be demonstrated empirically. The second important lesson from the deterministic line of argument is that language does not constrain its speakers' cognitive abilities, and it does not prevent them from understanding and speaking about foreign concepts. For example, it might be difficult to talk about the concept of *Zivildienst* in English, as general conscription and thus alternative service do not exist in large parts of the English speaking world. Terms such as *Auslandszivildienst*, *Gedenkdienst*, *Zivildienstkommission* or *Zivildienner* do not have English counterparts, and English speakers are simply not acquainted with these cultural concepts. However, English speakers have no problems understanding these concepts if they are explained to them (cf. Deutscher 2011: 148-149).

Today, nobody would deny that any thought can be expressed in any language. It might be argued that sometimes ideas can be expressed more easily in one language than in another one. More importantly, however, speakers of various languages do not differ in what they may convey, but in what they have to convey. This idea is attributed to

Roman Jakobson and Franz Boas, and Deutscher calls it the Boas-Jakobson principle (cf. Deutscher 2011: 152). Deutscher mentions the following example:

If I say in English ‘I spent yesterday evening with a neighbour’, you may well wonder whether my companion was male or female, but I have the right to tell you politely that it’s none of your business. But if we are speaking French or German or Russian, I don’t have the privilege to equivocate, because I am obliged by the language to choose between *voisin* or *voisine*, *Nachbar* or *Nachbarin*, *сосед* or *соседка*. So French, German, and Russian would compel me to inform you about the sex of my companion whether or not I felt it was your business (2011: 151-152).

Certainly, this does not mean that English speakers are not aware of the differences between evenings spent with a male or a female neighbour. Also, it does not mean that English speakers are not able to express the distinction if they want to. The example only demonstrates that English speakers do not have to specify the sex of their neighbour, while speakers of some other languages have to do so.

In other words, the Boas-Jakobson principle states that languages do not differ in what their speakers are able to express, but rather in what the speakers are obliged to express. And as will be illustrated in the following paragraphs, this idea is the basis of most recent approaches to linguistic relativity. If speakers’ attention is drawn to particular aspects of the world whenever they produce or receive language, these habits of speech may affect habits of mind. Recent research focuses on this kind of consequences for perception, memory, associations and even practical skills.

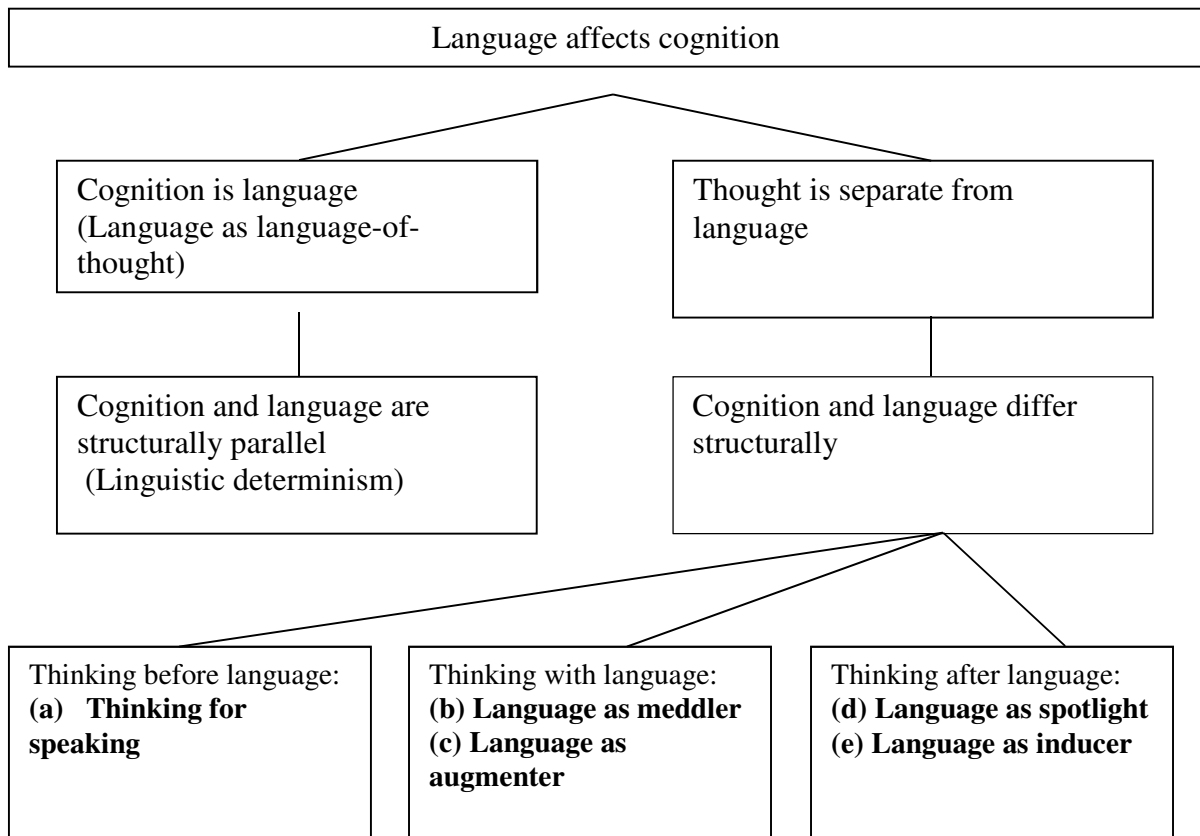
Wolff and Holmes distinguish between seven categories of hypotheses about the potential effect of language on thought. Their analysis is based on the examination of a wide range of domains, such as colour, motion, number and spatial relations. In figure 1 the seven types of approaches to linguistic relativity are presented, however, only five of them are relevant in recent research (cf. Wolff and Holmes 2011: 253-265). As mentioned in the previous chapter, the first two approaches, which Wolff and Holmes call ‘language as language-of-thought’ and ‘linguistic determinism’ are obsolete. It has been clarified in chapter that thought cannot be equated with language, as several cognitive processes are obviously independent of language. For example, people sometimes have difficulties expressing their thoughts. This would never be possible if cognition would be based completely on natural language. Also, Wolff and Holmes mention that “prelinguistic infants and non-human primates would be unable to engage in the kind of thinking of which research indicates they are clearly capable” (2011:



254). As indicated above, the medium of cognition must be something similar to what Jerry Fodor names ‘mentalese’, and which he explains in his language of thought hypothesis (cf. Fodor 1975; Chapman & Routledge 2005: 87).

Assuming that cognition cannot be equated with language, and that cognition and language differ structurally to some extent, five of the categories of theories summarised by Wolff and Holmes’ are of interest. First, they mention that one form of thinking that might be influenced by language is the kind of thinking that takes place as the speaker prepares for language production. In figure 1 this is called ‘thinking before language’ or (a) ‘thinking for speaking’. It refers exactly to what was mentioned in the example above about a striking difference between English and German in the sentence *I spent yesterday evening with a neighbour*. The English speaker does not have to specify the sex of the neighbour, while German speakers have to choose between the two forms *Nachbarin* and *Nachbar* before they utter the sentence. The second category of theories is termed ‘thinking with language’. According to these theories, non-linguistic processes are activated together with linguistic ones. On the one hand, it is argued that language can (b) “meddle with cognition via the interaction of perceptual and linguistic codes” (Wolff & Holmes 2011: 257) On the other hand, language is seen as (c) “augmenter”. This means that linguistic and non-linguistic representations may be combined in order to perform “tasks that could not be completed with either type of representation alone” (Wolff & Holmes 2011: 259). Finally, the third field of interest is named “thinking after language”. According to these types of theories, the use of language may, in the long run, draw habitual attention of the speaker to certain properties of the world, even in non-linguistic contexts. Language is assumed to either have the function of a (d) “spotlight”, as it makes “certain aspects of the world more salient than others” (Wolff & Holmes 2011: 259), or the function of an (e) “inducer”, as it may induce “people to conceptualize experience in a relatively schematic fashion” (Wolff & Holmes 2011: 259). These five approaches will be discussed in detail in the following chapters.

**Figure 1 Approaches to linguistic relativity (cf. Wolff and Holmes 2011: 254)**



### 2.5.1. Thinking before language

While German speakers, more often than English speakers, have to specify the sex of the persons they talk about (cf. chapter 2.5), Turkish speakers are compelled to indicate whether they witnessed an event or not when they describe past events. In Indonesian or Mandarin, in contrast to English, verbs need not specify tense (cf. Wolff & Holmes 2011: 256). All these examples indicate that the thinking that takes place immediately before speaking may differ from language to language.

The term ‘thinking for speaking’ was coined by Dan Slobin (1991, 1996). It refers to the idea that experience is always verbalized from a certain perspective, and that different languages favour different perspectives. To put it in Slobin’s words, “[t]he world does not present ‘events’ to be encoded in language. Rather, in the process of speaking or writing, experiences are filtered through language into verbalized events” (2000: 107). According to Stephen Pinker, “there is no evidence that languages dramatically shape their speakers’ ways of thinking (1994: 58). However there are many subtle influences that deserve scientific attention. Slobin mentions that it

should be evident that one cannot escape the influences of language while in the process of formulating or interpreting verbal messages. On first consideration, this seems trivially obvious. On deeper examination, however, it seems that such online processes vary considerably from language to language, both for producers and receivers of messages (2000: 107).

Several studies in various domains have been conducted in this field of research. For example, Slobin examines the lexicalization of motion events, based on Leonard Talmy's distinction between verb-framed and satellite-framed languages (cf. Slobin 2000; Talmy 1985, 1991). In order to explain the difference between these two types of languages the English sentence *He ran into the house* will be compared to the French sentence *Il est entré dans la maison en courant* ['He entered in the house by running'] (cf. Slobin 2000: 108). In a satellite-framed language, such as English, the main verb of the sentence, i.e. *ran*, describes the manner of the movement, while the particle, i.e. *into*, describes the path. In other words, the description of the path is provided by a satellite to the verb. In contrast, in the French language, the main verb, i.e. *entré*, defines the path, and the phrase *en courant* describes the manner of the movement. Thus, French is categorized as a verb-framed language. The manner phrases are usually omitted in languages such as French. It would be sufficient to say *Il est entré dans la maison* or even only *Il est entré* (Slobin 2000: 108). In French, manner of motion would only be expressed if it could not be inferred from the context, or if the manner of motion was unnatural in some way. Even if French speakers decide to specify the manner of the movement, they can only choose from a relatively small number of options to describe it. In contrast, in the English language there are a plethora of manner-of-motion verbs, which are used fairly frequently: *sneak in*, *slip in*, *dash in*, *limp in*, *creep in*, etc (Slobin 2000: 108). On the basis of such patterns, it may be argued that thinking for speaking varies systematically across languages.

In a study based on Talmy's and Slobin's theories, Teresa Cadierno examines in what ways L2 learners express motion events in an L2 that is structurally different from their L1. To be more precise, Danish is characterized as a satellite-framed language, whereas Spanish is defined as a verb-framed language. Cadierno hypothesizes that learners whose L1 is Danish and who learn Spanish as an L2 might learn a new way of thinking for speaking. In other words, Cadierno assumes that they learn "how the semantic components of a motion event are mapped into L2 surface forms" (Cadierno 2004: 19), and "which particular details of a motion event must be attended to in the input and

expressed in the L2” (Cadierno 2004: 19). However, the results of her study are somewhat ambiguous. Cadierno observed that the learners expressed the semantic component of path of motion more often than Spanish native speakers did. She attributes this fact to the influence of the learners satellite-framed L1, as by speaking Danish the learners had been trained to elaborate on the path of motion. However, Cadierno’s results do not present a consistent picture in terms of the role of the learners’ L1 in expressing motion events in the L2. She concludes that L1 influence on the L2 is constrained by several factors, such as the learner’s level of development and the learners’ perceptions regarding differences and similarities between the two languages (Cadierno 2004: 19).

Anna Papafragou and colleagues conducted several experiments concerning the representation of motion in language and cognition (cf. Papafragou, Massey & Gleitman 2002: 189-219). In a study that was conducted in 2008, Papafragou, Hulbert and Trueswell (2008: 155-184) monitored and compared patterns of eye-movement of two groups. The one group were native English speakers; the other group were native Greek speakers. Greek, like French, is a verb-framed language. In the study, participants were asked to watch motion events. When participants were instructed to watch animated clips and at the same time prepare to describe them verbally, eye-movement patterns revealed that, in contrast to English native speakers, Greek speakers tended to focus on path over manner. However, when participants were asked to watch motion events without focussing on the verbalization of the events, no significant differences in eye-movement patterns between the two groups were observed. Only at the end of the motion events, English speakers tended to focus on path, while Greek speakers focussed equally on manner and path. As will be discussed in the section “thinking with language”, Papafragou and her colleagues also hypothesize that these data reflect cross-linguistic differences in memorizing the scenes.

In a similar survey, Gennari and colleagues (Gennari, Sloman, Malt & Fitch 2002: 49-79) compared English and Spanish speakers’ perception of motion events. They observed that when verbal encoding was involved in the tasks, participants’ similarity ratings for motion events corresponded to language-specific patterns. However, in the non-linguistic tasks, no such correspondences were found. Another interesting study between English and Spanish motion events with similar results was conducted by Naigles and Terrazas (cf. 1998: 363-369).

To sum up, thinking for speaking is based on a subjectivist view to linguistic meaning. Langacker indicates that “the semantic value of an expression does not reside solely in the inherent properties of the entity or situation it describes, but critically involves as well the way we choose to think about this entity or situation and mentally portray it” (1987: 6-7). Langacker draws attention to the fact that a situation can be construed in several ways. Similarly, Cadierno claims that

the perspectives that speakers take on given events and situations are often influenced by the particular language they speak, i.e., by the available grammatical resources that can be used for given semantic domains. Languages thus often favour particular perspectives on a given situation (2004: 14-15).

In other words, in the process of speaking, language directs speakers’ attention to certain ways of interpreting the world. Slobin argues that thinking for speaking involves “picking those characteristics of objects and events that (a) fit some conceptualization of the event, and (b) are readily encodable in the language” (Slobin 1996: 76). This formulation is much less deterministic than the claims of other linguists. For example, Lucy additionally advocates the influence of language on non-linguistic cognition, i.e. on speakers’ patterns of categorization, attention and memory (cf. Lucy 1996), which will be discussed in the following chapters.

### **2.5.2. Thinking with language**

The next two approaches to linguistic relativity are subsumed under the heading “thinking with language” (cf. Wolff & Holmes 2011: 256). In other words, it is assumed that linguistic processes and non-linguistic processes are activated simultaneously. Language is viewed as a meddler or as an augments. (cf. Wolff & Holmes 2011: 256). The differences between these two classes of language effects will now be discussed.

#### **2.5.2.1. Language as meddler**

As mentioned in the previous section, Papafragou and colleagues (Papafragou, Hulberg & Trueswell 2008) examined eye-movement patterns of Greek and English speakers who watched animated motion events. The results of this study do not only suggest that language has an influence on cognition immediately before the process of speaking and

listening, but also in the process of perceiving events. Interesting results were generated at the end of the animations when participants were not instructed to pay attention to the linguistic coding of the motion events while watching the short videos. Participants started to focus on those aspects of the scenes that are not typically encoded in verbs in their first language. While English speakers first tended to focus on manner, at the end of the animations they shifted their attention to path. On the other hand, Greek speakers first preferably attended to path and at the end of the videos paid equal attention to path and manner. Papafragou and colleagues conclude that these language-specific differences reflect different linguistic coding in memory. Generally, it was found that Greek speakers did not remember the events as well as English speakers did. The authors of the study attribute this effect to the Greek speakers' efforts to attend to both, manner and path, at the same time.

As mentioned above, names of colours are no absolute or objective categories, but to some extent they differ from language to language and from culture to culture. The domain of colour has been very controversial, and both sides, supporters of linguistic relativity as well as opponents, have tried to prove their point of view in this field of investigation. Even though Berlin and Kay demonstrate that to a significant extent colour categorization terms are similar across languages (Berlin & Kay 1969), recent studies point suggest that speakers of different languages conceptualize colours somewhat differently. For example, Winawer reveals that in Russian the distinction between *siniy* 'dark blue' and *goluboy* 'light blue' – which was mentioned in chapter 2.3 – leads to differences in colour discrimination. In an experiment, Russian speakers were faster than English speakers in matching colours when they belonged to different linguistic categories than when they were members of the same colour category (cf. Winawer, Witthoft, Frank, Wu & Boroditsky 2007). Similarly, Gilbert and colleagues found that participants in their study were able to select a target faster when it was in a different linguistic category from the surrounding distractors than when all the items were different shades of one colour. For example, participants located a green among blues faster than a green among other shades of green (cf. Gilbert, Regier, Kay & Ivry 2006: 489-494). All these findings indicate that linguistic and perceptual codes interact. In other words, language meddles with cognition. While this theory is based on the assumption that “a decision can be made on the basis of either linguistic or nonlinguistic [sic] representations” (Wolff & Holmes 2011: 257), some linguists claim that “linguistic representations combine with nonlinguistic [sic] representations to enable people to

perform tasks that could not be completed with either type of representation alone” (Wolff & Holmes 2011: 257). The latter theory will be discussed in detail in the following section.

### **2.5.2.2. Language as augments**

Wolff and Holmes mention four areas of research in which linguists have investigated the function of language as an augment (Wolff & Holmes 2011: 256-258). However, only one of them will be discussed here, the role of language in category learning. It was already mentioned in chapter 3.2 that “most of our words and concepts designate categories“ (Lakoff 1987: xiii) and “most if not all of our thought involves these categories“ (Lakoff 1987: xvii). Waxman and Markow (1995) claim that language may facilitate category learning. Furthermore, they suggest that language may prompt the formation of new categories. Lupyan, Rakison and McClelland (2007) carried out several studies in order to demonstrate these influences. Participants learned to distinguish between two types of alien creatures, approachable and non-approachable ones. Even though participants were able to learn these categories solely on the basis of visual information, and they did not necessarily need to learn labels for these categories, it was demonstrated that they learned the categories much faster when auditory or written labels were provided. In a different study, Lupyan (2006: 190-197) illustrated that categories that are learned with labels are more flexible in terms of incorporating new category members.

### **2.5.3. Thinking after language**

The final set of hypotheses may be named “thinking after language” (cf. Wolff and Holmes 2011: 258-260). It is argued that language might affect thought after the use of language. As Wolff and Holmes put it, the “long-term use of a language may direct habitual attention to specific properties of the world, even in nonlinguistic contexts” (2011: 258). On the one hand, language is seen as a spotlight, which means that language might draw the language users’ attention to certain aspects of the world. On the other hand, language might induce certain modes of processing that continue even when language is no longer used. These two classes of theories will be discussed in detail now.

### 2.5.3.1. Language as spotlight

As language is closely connected to culture, it is not unlikely that different languages highlight different aspects of the world. For example, Boroditsky, Schmidt and Phillips (2003: 61-79) note that grammatical gender differs among languages. Comparing Spanish and German, they observe that in many cases languages conflict in their assignment of grammatical gender. For instance, the German word for *key* is masculine, while the Spanish term is feminine. Conversely, the German term for *bridge* is feminine, while the Spanish one is masculine. Thus, the assignment of grammatical gender does not reflect any 'objective' masculine or feminine aspects of objects in the world, but it is arbitrary and derives from language-specific conventions. Boroditsky, Schmidt and Phillips (2003: 61-79) examine whether these categories, that are imposed on the speakers by the language they speak, affect the way people think about objects. To be more precise, they conducted an experiment and found that German and Spanish speakers had greater difficulties learning associations between proper and common nouns (e.g. *Christopher* and *arrow*) when the grammatical gender of the two nouns differed. Also, the authors demonstrated that English speakers who learned a new language with grammatical gender could be manipulated experimentally. Their attention was directed towards different aspects of objects. What is more, the effects of grammatical gender influenced participants' judgements concerning the similarity of unlabelled pictures (cf. Boroditsky, Schmidt & Phillips 2003: 61-79).

Vigliocco and colleagues (Vigliocco, Vinson, Paganelli & Dworzynski 2005: 501) hypothesise that speakers pay more attention to aspects of meaning that need to be expressed obligatorily in their language than to those aspects that can be expressed optionally. Vigliocco and colleagues conducted four experiments in which they compared grammatical gender effects in Italian, a language with two grammatical genders, and German, a language with three grammatical genders. However, they came to the conclusion that gender effects on cognition are highly constrained. In their final discussion they reformulate their claims and suggest that language only has an effect on cognition in "thinking for speaking", which was discussed earlier in this paper (cf. Slobin 1996). More generally, they suggest that

[t]hinking for using language must differ across languages when we consider aspects such as conceptual gender: Italian speakers must pay more attention to the sex of a friend, professor, child, and so forth to produce the correct words in sentences, in contrast to English speakers



for whom conceptual gender is less obligatorily marked (Vigliocco, Vinson, Paganelli & Dworzynski 2005: 513).

An important study that compares the effects of grammatical gender and classification on cognition across several languages, i.e. Spanish, English, French and German, was conducted by Sera and colleagues (Sera, Elieff, Forbes, Burch, Rodrigues & Dubois 2002: 377-397). The gender systems of these four languages differ to greater or lesser extent. Interestingly, Sera et al. found differences between French and Spanish speakers' classifications on the one hand and German speakers on the other hand. They claim that a

grammatical gender system with only two gender categories, and with high correlation between grammatical and natural gender, leads to overgeneralization of masculine and feminine traits to inanimate objects (Sera, Elieff, Forbes, Burch, Rodrigues & Dubois 2002: 396).

On the other hand, in the case of German, their results indicate that

[e]ven though the grammatical gender system of German failed to lead to overgeneralization of male and female qualities to inanimate objects, it seems to lead its speakers to rely more heavily on other conceptual distinctions (Sera, Elieff, Forbes, Burch, Rodrigues & Dubois 2002: 396)

In another comparative study on grammatical gender, Kousta, Vinson and Vigliocco (2008: 843-858) tested both monolingual and proficient bilingual speakers of English and Italian. This method of investigating the effects of language on cognition in bilinguals opens up new research possibilities. Kousta and colleagues found that bilingual speakers performed differently when they completed tasks in English than when they completed them in Italian. Their behaviour was similar to that of monolingual speakers of each language. This leads to the conclusion that "Italian grammatical gender cannot logically have an effect on the nonlinguistic, conceptual representations of bilingual speakers" (Kousta, Vinson & Vigliocco 2008: 855). However, other authors (cf. Boroditsky, Schmidt & Phillips 2003) have come to the opposite conclusion. Linguistic relativity is a very complex field of study, and some of the challenges of finding evidence for the influence or connection between language and cognition will be discussed in a separate chapter. For now, another field of language as a spotlight will be discussed, namely spatial frames of reference.

Another research area are spatial frames of reference. Linguists have observed that there are basically three different systems of how space can be perceived. In a geocentric

frame, an absolute coordinate system is used to refer to space. In other words, the cardinal directions are used to describe the position of objects in the world, e.g., *Linz lies west of Vienna*. On the other hand, in an object-centred frame, the axes are placed in the object itself, e.g., *front of a house*. Finally, in an egocentric frame of reference, the axes of reference are defined as being in the observer's own body. For example, *take the first road on the left and then go straight ahead*. Several studies have proved that all three frames of reference are available to people in all cultures around the world (cf. Gallistel 2002; Levinson, Kita, Haun & Rasch 2002). However, some studies indicate that there are cross-linguistics and cross-cultural differences concerning people's preference of certain frames. For example, Majid and colleagues (cf. Majid, Bowerman, Kita, Haun & Levinson 2004: 108-114; Levinson 1996) have documented that languages make use of the three frames of reference to different degrees. For example, English speakers predominantly use the egocentric and the object-centred frames, whereas speakers of Tzeltal, a Mayan language in Mexico, prefer the geocentric and the object-centred frames. These observations support the notion that language, culture and cognition are strongly interconnected. Together these three factors may guide people's attention thus influence their perception of the world.

Grammatical gender and spatial frames are certainly not the only one domains of research in this field. There may also be significant language-specific differences in the domains of spatial language, metaphors of time, or as mentioned above, colour-categorization. As Boroditsky argues, the role of language in more abstract domains of knowledge may be more powerful than in concrete domains (2001: 1-22). The reason for this might be that concrete concepts are primarily learned through direct experience, while abstract concepts are rather learned through language. Another point that needs to be mentioned is that language

may have a more pervasive effect for perceptually and conceptually continuous domains (e.g., color, time, and space) than for discrete domains (e.g., objects or sex). It is only by investigating a broad range of languages and cross-linguistic differences that the role of these more general factors can be better understood (Vigliocco, Vinson, Paganelli & Dworzynski 2005: 513).

It would certainly go beyond the scope of the present thesis to compare a broad range of languages. Instead, the focus will be on a comparison of English and German. In other words, the thesis examines cross-linguistic differences between two languages and thus contributes to the progress of science as recommended by Vigliocco and colleagues.

### 2.5.3.2. Language as inducer

Finally, some linguists argue that language influences thought in an even more general way. Wolff and Holmes claim that “language may prime a particular mode of processing experience that continues to be engaged even after language is no longer in use” (2011: 264). They replicated an experiment conducted by Freyd, Pantzer and Cheng (1988: 395-407) and found that

when an object supporting another object was suddenly removed (e.g., a pedestal beneath a potted plant disappeared), people appeared to simulate the effect of gravity on the unsupported object, as evidenced by their insensitivity to downward changes in the position of the unsupported object [...] (Wolff & Holmes 2011: 264).

Participants were asked to look at schematic line drawings and photorealistic images. The mental simulation of gravity occurred more often when participants looked at the schematic drawings than when they looked at photorealistic images. However, when they were asked to describe the photorealistic images verbally, the simulation of gravity occurred too. On these grounds, Wolff and Holmes claim that

language, and relational language in particular, can induce people to conceptualize experience in a relatively schematic fashion, a mode of processing effective in facilitating mental simulation (2011: 264).

Also, in the psychology of eyewitness testimony it is well known that the way in which a question is formulated can influence an answer. Loftus and Palmer present the findings of an experiment in which people watched a video of a car accident. The witnesses estimated lower speed rates if the question included a neutral verb (e.g. *About how fast were the cars going when they hit each other?*) in contrast to an expressive manner verb, as in *smashed into each other*. Witnesses were also more likely to allegedly remember and report that there had been broken glass on the ground if the question included the verb *smashed*, even though in fact there had not been any broken glass (cf. Loftus and Palmer 1974). Slobin concludes that “it is clear that listening for remembering is an active, language-guided process” (2000: 127).

## 2.6. Controversial issues in current research

It has been pointed out in the previous chapters that the relation between language, cognition and culture is highly complex, and that it is still a matter of intense debate as

to what extent language is interconnected with cognition. While some researchers argue that linguistic categories imposed by language only affect other linguistic representations and processes involved in speaking, others believe that language additionally has an effect on nonlinguistic cognition. According to this stronger hypothesis, language has the power to restructure the mind even beyond the processes involved in producing and receiving a particular language. However, the latter hypothesis is very controversial, one reason for this being the fact that it is very difficult to prove. At the present, Lera Boroditsky (cf. Boroditsky 2000, 2001, 2003, 2010, 2011a, 2011b) is certainly one of the strongest supporters of linguistic relativity, but at the same time many scientists criticize her methods and conclusions. The major points of critique on Boroditsky will be mentioned in the following paragraphs, generally representing the challenges in the research area of linguistic relativity.

Russell Schuh, one of Boroditsky's greatest critics, does not deny that there is some kind of relation between language and cognition. He admits that putting "things into language through writing or speech helps us organize and clarify our thoughts" (Schuh 2011: 2). However, he claims that thoughts are not created by language, but they are merely expressed via language. Thus, he views language as a mere tool that helps people expressing their thoughts. And from this point of view, he argues that certain thoughts can be expressed more easily in some languages than in others. For example, he mentions that Spanish subjunctive allows Spanish speakers to express conditionality or mental uncertainty more easily than English speakers. In English, additional phrases would be needed to express the same thought. However, Schuh does not believe that language creates thought. He reduces the function of language to a device of labelling thought (cf. Schuh 2011:2). To some extent this may be true, as thoughts can exist without language. However, considering the current moderate approaches to linguistic relativity that were mentioned above, it cannot be denied that different languages draw speakers' attention to different aspects of the world, and thus influence speakers' as well as listeners' perception, at least in the processes involved in communication.

Schuh criticizes Boroditsky's and her colleagues' experiments in several ways. In a response to Boroditsky's article *How language shapes thought* in the *American Scientific* (cf. 2011b: 63-65), he qualifies Boroditsky's rather strong claims. First, he addresses Boroditsky's idea that different languages highlight certain aspects of reality and thus change speakers' cognition. Boroditsky argues that the phrase "*having seen*

*Uncle Vanya on 42<sup>nd</sup> street*” (2011b: 63) would have to be expressed differently in Mandarin Chinese than in English. Because of the different lexical structure of their language, Mandarin speakers would have to specify whether the uncle is a brother of the mother or of the father. Schuh asks:

So what?! This fact has nothing to do with what English or Mandarin speakers know about Uncle Vanya. If he is your father’s elder brother, Mandarin will express that directly in one word, whereas it is left vague in English or will phrase ‘older paternal uncle’. Using the single word meaning Mandarin ‘older paternal uncle’ may evoke certain cultural responses among Mandarin speakers. Maybe you can expect some money from his estate when he dies that you couldn’t [sic] expect if he were your maternal uncle, but it is this cultural fact about relationships that affects your thinking and that leads to having a special linguistic term. It is not the existence of the linguistic term that shaped your thought (2011: 2-3).

Certainly, Schuh is right in claiming that the fact that a word exists in the one language but not in another one does not necessarily prove linguistic relativity as such. He rather attributes the existence or non-existence of a certain term to cultural considerations. However, language and culture cannot be analysed separately, as the former shapes and reflects the latter, and vice versa. Also, English speakers are certainly able to distinguish between maternal and paternal relatives. Nevertheless, in this example, speakers of the two languages highlight different aspects of the world, and at least in the process of thinking for speaking they guide speakers’ and listener’s cognitive attention.

Another domain of Boroditsky’s research that Schuh criticizes are spatial frames of reference, as discussed in chapter 2.5.3.1. Boroditsky refers to the exotic Kuuk Thaayorre language and claims that speakers of that language do not “use relative spatial terms such as left and right” (Boroditsky 2011b: 64). She claims that they solely rely on absolute cardinal directions, and would only say sentences like “*the cup is southeast of the plate*” (Boroditsky 2011b: 64). First of all, exotic languages that are only spoken by very few people and that most linguists are not familiar with have often been misused in the history of linguistic relativity to proclaim sensational hypotheses. It is difficult to verify whether speakers of Kuuk Thaayorre indeed solely rely on a geocentric system of reference. As discussed above, speakers of most languages make use of all three types of reference systems (geocentric, object-centred and egocentric). Languages only differ in which system they prefer over the others. Thus, it is difficult to believe that speakers of Kuuk Thaayorre only use the geocentric frame of reference. Assuming that it really does so, Schuh questions where language is involved in the

discussion: “This task is not a linguistic one. It only involves knowing where east is” (Schuh 2011: 3). This is certainly a legitimate objection, and again, the answer is that language, culture and cognition are intertwined. However, even if language only reflects cultural and cognitive conventions, it does still play a role in drawing the language users’ attention to certain frames of reference.

Boroditsky also observes that languages differ in how they construct metaphors for temporal expressions (cf. 2000, 2001, 2011a). For example, in English the future is usually considered to be *ahead*, while the past is *behind*. “But in Aymara, a language spoken in the Andes, the past is said to be in front and the future behind” (Boroditsky 2011b: 64). Schuh claims that these differences are negligible and that both English and Aymara speakers “think of past events as being ‘over and done, water under the bridge, irreversible, etc.’ and of future events as ‘something that has not come into reality, something potentially avoidable, etc.’” (Schuh 2011: 3). Maybe the metaphorical use of spatial terms to conceptualize time does not reshape cognition in dramatic terms, but still, in the process of speaking or listening it may affect speakers’ perception of the world. Also, it may be claimed that learning a second language implies learning new ways of perceiving the world from different perspectives.

One of Boroditsky’s proposals which Schuh seem to endorse – at least in general terms – is that language structures affect memory (cf. Boroditsky 2011b: 64; Fausey & Boroditsky 2011 150-157). Boroditsky conducted an experiment and claims that

English speakers tend to phrase things in terms of people doing things, preferring transitive constructions like ‘John broke the vase’ even for accidents. Speakers of Japanese or Spanish, in contrast, are less likely to mention the agent when describing an accidental event. In Spanish one might say ‘Se rompió el florero,’ which translates to ‘the vase broke’ or ‘the vase broke itself’ (Boroditsky 2011b: 64).

In the experiment, speakers watched various events, some involving accidents, others involving intentional actions. Boroditsky found that English speakers performed better than Spanish or Japanese speakers at recalling who the agent was, and who the object was in the accidental events. Spanish and Japanese speakers tended not to mention the actor, and formulated the events more impersonally. Certainly, this experiment needs to be replicated and extended, but it is a starting point that suggests that linguistic relativity, with respect to memory, does in fact exist.

Boroditsky's claim that language may facilitate or complicate the acquisition of the base-10 numerical system, however, is very controversial. She claims that, for instance, "because the number words in some languages reveal the underlying base-10 structure more transparently than do the number words in English [...], kids learning those languages are able to learn the base-10 insight sooner" (2011b: 65). According to this theory, it would be more difficult to learn the base-10 system in English than in certain other languages, as in English words like *twelve* are used instead of *two-teen* (cf. e.g., Italian *dodici*). However, Schuh denies this notion and claims that understanding "how a base-10 system works has nothing to do with language" (2011: 4). Unfortunately, he does not elaborate on this issue. However, also supporters of Boroditsky's theory still need to deliver evidence if they want to prove this assumption right. At present, it can only be assumed that at least in the process of thinking for speaking language guides speakers' attention and cross-linguistic differences can be found.

Finally, Schuh addresses the domain of colour discrimination, which has been discussed in chapter 2.3. He criticizes Boroditsky's rather vague formulation of the following two sentences:

Teaching people new color words, for instance, changes their ability to discriminate colors. And teaching people a new way of talking about time gives them a new way of thinking about it (Boroditsky 2011b: 65).

Indeed, it can be criticized that Boroditsky does not specify what she means when she writes *gives them a new way of thinking about it*. Schuh argues that this phrase could be interpreted in the following way. Whenever we learn new words, in our first language or in our second language, these new words do not open our eyes to objects we were previously unable to see or perceive. The new words simply draw our attention to "a distinction that [we] hadn't [sic] thought about before or hadn't [sic] had a label for" (Schuh 2011: 6). Thus, learning a second language may indeed mean that the language learner has to acquire different conceptual representations of the world.

At this point, January and Kako's (2007: 417-426) critique on Boroditsky and colleagues shall be mentioned too. The two authors have tried to replicate six key findings of Boroditsky's article (2001), but were not able to complete their experiments successfully. Thus, they deny that Boroditsky provides any "support for the Whorfian hypothesis" (January & Kako 2007: 417). For example, they admit that English speakers may typically order events in time from left to right when they are forced to do

so, but this does not reveal anything about their internal representation of time. Also, it does not necessarily prove whether language or cultural convention has driven the effect. However, in the end of their article, January and Kako make clear that they are “not claiming that all documentations of linguistic relativity should be disregarded based on one set of studies” (2007: 425). In other words, they do not dismiss Boroditsky’s arguments completely. They do, however, point out that supporters of linguistic relativity should not jump to conclusions and present them as facts.

Finally, it must be mentioned that some opponents of Boroditsky and her colleagues subtly imply that Boroditsky is somewhat naïve and that they view her methods as unscientific (cf. e.g. Schuh 2011). While the latter may be true in some cases, it must be noted that Boroditsky herself is well aware of the weaknesses of the current research on linguistic relativity:

First, speakers of different languages are usually tested in their native language. Any differences in these comparisons can only show the effect of a language on thinking for that particular language. These studies cannot tell us whether experience with a language affects language-independent thought such as thought for other languages or thought in nonlinguistic tasks. Second, comparing studies conducted in different languages poses a deeper problem: There is simply no way to be certain that the stimuli and instructions are truly the same in both languages [...]. A third limitation is that even when nonlinguistic tasks (such as sorting into categories or making similarity judgments) are used, the tasks themselves are quite explicit. Sorting and similarity judgment tasks require participants to decide on a strategy for completing the task. [...] When figuring out how to perform a task, participants may simply make a conscious decision to follow the distinctions reinforced by their language. For this reason, evidence collected using such explicit measures as sorting preferences or similarity judgments is not convincing as nonlinguistic evidence (Boroditsky 2001: 2-3).

To sum up, stronger versions of linguistic relativity, according to which language restructures cognition significantly, have not been very convincing so far. The problem is that many experiments cannot be replicated, and thus their scientific value is at least questionable. The biggest challenge, however, is probably the fact that the influence of language on cognition can never be observed isolated from other factors, such as individual speakers’ preferences, cultural influences, and other traditions and conventions. What can be said for sure is that the connection between language and cognition is highly complex, and that there is evidence for the more moderate claims that at least sometimes language functions as a spotlight and that in the process of



communicating it has an influence on cognition. This will be discussed in detail later on. In the following chapter, however, linguistic relativity will be discussed from the perspective of language learning and acquisition.

## **2.7. Second language learning and teaching**

Certainly, acquiring a first language and consciously learning a second language in school or later on in life are two completely different processes. Learners who consciously learn a second language sometimes feel confused about certain expressions and conceptualizations they discover in the new language and they compare them to their first language. Kecskes and Papp claim that

people with more than one language have different knowledge of their first language (L1) than do monolingual people, and this difference can mainly be due to the effect of subsequent languages on the development and use of L1 skills (Kecskes & Papp 2000: ix).

Thus, it could be argued that learning a second language may change the learners' world view, insofar as they realize that their first language provides only a certain way of conceptualizing and describing the world among many others. Singleton suggests that "when we encounter new languages we make judgements about their relationship to languages we already know" (2007: 13). Achard and Niemeier support the cognitive linguistic approach to second language learning and describe the difference of L2 learning to L1 acquisition as follows:

[T]he emphasis of research shifts to the retaining that needs to take place in order to learn a new set of symbolic units. In a developing L2 system, the target units are in direct competition with the native ones because they both represent alternative ways of construing the same reality. L2 learning can therefore be viewed as a gradual process by which the target system gains more and more differentiation and autonomy from the native one. This autonomy is complete when the learner exercises full control over two separate sets of conventionalized linguistic impressions (Achard & Niemeier 2004: 6).

This statement implies that different languages construe the world differently. Also, the authors claim that learning a second language implies learning new conventions and patterns of attention. As mentioned above, different languages highlight different aspects of the world, and draw speakers' and listeners' attention to these aspects. Achard and Niemeier conclude that recognizing the significance of meaning to

linguistic organization has several consequences for second language teaching. First, they argue that the “symbolic character of a linguistic system, and thus the absence of a strict delineation between the lexicon, morphology, and syntax” (Achard & Niemeier 2004: 7) opens up interesting methodological opportunities for grammar instruction. The semantic meaning of grammatical constructions is highlighted and grammar is no longer seen merely as a set of arbitrary and meaningless rules. Second, Achard and Niemeier argue that “the very constructs relative to which the meaning of linguistic expressions is characterized constitute potent teaching guides, because they provide the necessary social context to learn difficult, often culture-specific concepts” (Achard & Niemeier 2004: 8). In her article, Niemeier supports the notions of linguistic and cultural relativity, and discusses their relevance for the foreign language classroom (cf. Niemeier 2004). As a third consequence for language teaching, Achard and Niemeier mention the idea that

teachers can guide their students through the paths of semantic extension and emphasize what the peripheral senses share with the more central ones in order to facilitate their learning (Achard & 2004: 7-8).

To sum up, cognitive linguists and second language teachers are interested in linguistic relativity for various reasons. Considering that the meanings of linguistic expressions are foregrounded in second language teaching, teachers should be aware of the concept of linguistic relativity. Furthermore, in a learner-centred second language classroom, learners should be encouraged to discover cross-linguistic differences.

## **2.8. Concluding remarks on the theory of linguistic relativity**

In this first major part of the thesis, the theoretical background about linguistic relativity has been discussed and outlined. It has been claimed that linguistic diversity should not so much be regarded as a heavy burden, but rather as a manifestation of human creativity and cognition. Every language may be viewed as the result of a long process of developing and organizing thoughts for the purpose of communication. And every language, through its lexicon and grammatical structure, guides its speakers’ attention to certain salient aspects of reality. Since the rise of cognitive linguistics, there has been a renewed interest in linguistic relativity, as cognitive linguists claim that language is not autonomous from cognition, that grammar carries meaning, and that language can only

be learned by actively taking part in communication. Also, from the perspective of the cognitive linguistic paradigm, meaning does not exist independently from thinking beings. Meaning is rather created by them, and is thus based on human cognition. It has been demonstrated that languages categorize the world differently, and that this leads to different interpretations of the world.

Also, various different views on linguistic relativity have been discussed. Today, virtually nobody would support the deterministic view, according to which language limits the cognitive abilities of its speakers. It has been argued that every thought can be expressed in every language. Languages do not differ in what they are able to convey, but rather in what they have to convey. However, it is still a matter of intense debate in what ways and to what extent language affects cognition. Five modern approaches to linguistic relativity have been discussed, according to which cognition is affected before, during, or after the process of speaking. Certainly, these theories do not provide the ultimate explanations for linguistic relativity, but they will serve as the basis for the comparison of English and German in the following part of the present thesis. Considering the critique on these approaches, the following contrastive study of two closely related languages will primarily focus on thinking for speaking and language as a spotlight. It has been pointed out repeatedly that the field of cognitive linguistics is very open to some sort of linguistic relativity. Accepting linguistic relativity in the way it has been defined so far and in the way it will be demonstrated in the following part will have an influence on second language teaching. In the previous chapter some pivotal ideas about language learning and teaching have been outlined already. They will be further developed in the last part of the paper.

### **3. A contrastive study: differences between English and German**

Five modern approaches to linguistic relativity were presented in the previous section: thinking for speaking, language as meddler, language as augments, language as spotlight, and language as inducer. It was highlighted repeatedly that these theories are controversial, and that at least some of them need further empirical evidence – maybe based on more reliable methods – before they will be generally accepted. It would certainly go beyond the constraints of this paper to compare English and German from the perspectives of all five approaches. As the present contrastive study is based on hermeneutic research and not on experiments, the notions of language as meddler, language as augments and language as inducer will be left aside. These three theories cannot be discussed scientifically without empirical evidence. The focus will thus be on the role of language in the theories of thinking for speaking and language as spotlight. Two more reasons why these two approaches have been selected are that on the one hand they support a rather moderate view on linguistic relativity, and on the other hand they seem to be most widely accepted in the linguistic scientific community.

The aim of the study is to demonstrate that different languages draw speakers' attention to different aspects of reality, even in the case of two historically and culturally closely related languages, such as English and German. Once again, it must be mentioned that language does not limit speakers' cognitive abilities. Basically, any thought can be expressed in any language, and anything can be thought by speakers of any language. However, some thoughts may be expressed more easily in a certain language than in another one. Additionally, the way of categorizing and organizing the world differs from language to language. Thus, it is claimed that speakers of different languages pay attention to different aspects of the world by default, at least in the processes of speaking and listening. This does not necessarily mean that the patterns of attention differ systematically between two languages, or that one language is in any way superior to another one. This contrastive study is rather designed to single out and discuss some striking examples in order to raise awareness of the fact that speakers' attention is guided by the languages they speak.

Once again, the two relevant hypotheses for the following analysis will be summed up briefly. According to the theory of thinking for speaking, experience is always verbalized from a certain perspective, and different languages favour different perspectives. Reconsidering the example mentioned in chapter 2.5, in the sentence *I*

*spent yesterday evening with a neighbour*, English speakers need not specify the sex of their neighbour, whereas speakers of German have to do so. The hypothesis of language as spotlight is closely related to the idea of thinking for speaking. However, supporters of this theory claim that language does not only influence speakers shortly before the process of language production or reception. They suggest that even after language was used, speakers' attention remains at certain language-specific salient aspects of reality.

At this point, the limits of the following contrastive study need to be discussed. Probably the strongest point of criticism may be that the study does not include any experiments. This is certainly a valid objection as it was mentioned earlier that any assumed influence of language on cognition needs to be based on empirical evidence. However, the current study does not include any experiments for two reasons. First, as mentioned above, the theory of thinking for speaking is accepted by most linguists today, and language as spotlight is closely related to this theory. In the first part of the paper, several examples providing evidence for the two theories were referred to and presented. Thus, the contrastive study is based on the findings of previous research and aims at applying these findings to the two languages English and German. All the claims that will be made will be illustrated and supported with examples. Second, empirical experiments in addition to a hermeneutic discussion of the topic would go beyond the scope of this paper.

Another limitation of the study is that not all similarities and differences between the two languages concerning their role in connection with cognition can be described here, as these differences are highly complex and multi-layered. The study is not intended to be exhaustive. It is designed to illustrate some of the most striking differences between English and German, and to focus on aspects that might be particularly relevant to second language learning and teaching. The consequences for language learning and teaching will be discussed in detail in the last part of the thesis (chapter 4).

At this point it must also be mentioned that the term *language* is difficult to define. Basically, a language may be described as a system of meaning upon which all speakers of a speech community have agreed. However, every single word or expression means something slightly different to everyone, even within the same speech community. Every individual interprets the meaning of a word or expression somewhat differently, depending on their personal experience and the resulting associations with the word or

expression. In other words, the meaning of an expression can never be translated absolutely accurately into another language, as

[s]peakers who talk differently about the world also think about it differently because language not only reflects the organization of our temporal linguistic and nonlinguistic representations, but also shapes individuals' unique conceptual repertoires (Pae 2012: 55).

Interestingly, many recent studies investigate the role of language in the process of cognitive activation within the same language community rather than between different language communities (cf. e.g. Stapel & Semin 2007: 31).

It has often been criticized that in many studies researchers refer to features of languages that are nearly extinct, spoken in remote regions of the world, or spoken by an extremely limited number of people. Due to the lack of documentation of these languages, and the difficulty of double-checking the authors' claims, the validity of these studies must be questioned. In the present contrastive study, two well-documented and widely used languages are compared. Thus, the results of the analysis can be verified easily.

As the "value of a theory lies in the use that can be made of it" (Halliday 1985: 7), the theories of thinking for speaking and language as spotlight will be the basis of the comparison of English and German, and subsequently their use for language learning and teaching will be discussed. On the following pages, various domains of language, culture and cognition will be analysed: time and space, metaphors, lexical and semantic categorization, structure of information, pragmatic aspects, and idioms. These aspects have been selected in order to demonstrate the multi-faceted interplay of language, culture and cognition.

### **3.1. Time and Space**

As the term linguistic relativity alludes to Einstein's theory of relativity, which is concerned with the structure and perception of time and space, these two areas will be the first points of analysis. The more abstract domain of time is often expressed in terms of spatial concepts. This is why time and space are discussed under one common heading. The connection between spatial and temporal expressions can be observed in the following examples (1-3):

1. a. He walked *from* London *to* Vienna.  
b. Es ist *von* London *bis* (nach) Wien gegangen.
2. a. *from* four o'clock *to* five o'clock  
b. *von* vier Uhr *bis* fünf Uhr
3. a. *in* the morning  
b. *am* Morgen

It is a common phenomenon that metaphors are used to map rather concrete domains, which in this case is a motion event in space, on more complex ones, i.e. time (cf. Niemeier 2004: 108-109; Boroditsky 2000: 1-28). Ramscar, Matlock and Boroditsky review several studies “that indicate that people’s understanding of the abstract domain of time supervenes on their more concrete knowledge and experience of the motion of objects in space” (2010: 68). This is illustrated in examples 1 and 2. In example 2, English and German use the same – or at least very similar – spatial metaphors to refer to a period of time. In example 3, however, the two languages map different spatial concepts on time. While English speakers say *in the morning*, German speakers say *am Morgen* ‘on the morning’. Metaphors differ from language to language and it may thus be argued that they provide different perspectives on the world. At the same time, example 3 illustrates that prepositions, particularly in their extended, non-prototypical meaning, differ considerably from language to language. Metaphors and prepositions will be discussed in detail in the following subchapters. Two other areas of investigation will be motion events and the progressive aspect, which is expressed differently in English and in German.

### **3.1.1. Metaphors for time**

From a cognitive linguistic point of view, metaphors are used in order to facilitate understanding of abstract domains. The observer or speaker focuses on a certain similarity between two different domains. As illustrated in examples 1 and 2, time is often understood in terms of spatial concepts, i.e. movement through space. In other words, space is the source domain, and time is the target domain. According to Niemeier this kind of mapping “does not happen in a conscious way, it is part of our linguistic and cultural socialization” (2004: 109). More explicitly, Achard and Niemeier mention that “[s]ince metaphors are largely culture specific, learning the metaphors

used in a given language provides invaluable insights into the way in which the speakers of that language act and think” (2004: 4). In the following examples (4-6), English and German map the domain of money on the concept of time:

4. a. This has *cost* me a lot of *time*.  
b. Das hat mich viel *Zeit gekostet*.
5. a. This is a *waste* of *time*.  
b. Das ist *Zeitverschwendung*.
6. I *spent* an *hour* with my grandfather yesterday.

The concept behind all these examples is that time is money. This kind of mapping is not a conscious process. It results from “a cognitive predisposition within our culture” (Niemeier 2004: 108). As illustrated in examples 4, 5 and 6, the conceptualization of time as money in our minds manifests itself in various linguistic expressions. Clearly, the fact that speakers of both languages use this metaphor derives from the fact that Anglo-American cultures and the German culture are relatively closely related. However, some instantiations of the concept of time as money are only used in one language and do not have corresponding expressions in the other language. While examples 4 and 5 are expressed in the same way in English and German, the phrase *spent an hour* in example 6 does not have a corresponding German counterpart. There is no German equivalent to this instantiation of the metaphor *time is money* (cf. Niemeier 2004: 108-109).

It has been demonstrated that a conceptual metaphor manifests itself in various linguistic instantiations, and that these instantiations are not always the same in two languages. Returning to the mapping of spatial concepts on time, the following examples shall be considered:

7. a. das Auto *vor* dem Haus  
b. the car *in front of* the house
8. a. der Tag *vor* der Konferenz  
b. the day *before* the conference

In German, one expression, i.e. *vor*, is used for the spatial and the temporal meaning of the same concept, as illustrated in examples 7 and 8. In English, however, two different terms are used. *In front of* is only used for spatial relations, whereas *before* may be used



for temporal or spatial relations. In example 9, for instance, *before* is used in the spatial sense:

9. The teacher placed Douglas *before* Eric, because Eric was a little taller.

The dual meaning of German *vor* resembles that of *before* in English to some extent. However, in German *vor* is used equally for both spatial and temporal expressions, whereas English *before* is prototypically used for temporal expressions, and only in some cases for spatial expressions. For the opposite direction, both languages use different terms for spatial and temporal relations:

10. a. das Auto *hinter* dem Haus  
b. the car *behind* the house  
11. a. der Tag *nach* der Konferenz  
b. the day *after* the conference

In examples 10 and 11, the spatial relation is expressed with *behind* or *hinter*, and the temporal relation is expressed with *after* or *nach*. To sum up, it has been demonstrated that the

extent to which spatial language is used to express temporal relations varies across languages, even between languages as closely related as German and English. This variation points towards a complex relationship between the two domains of time and space at the conceptual level (Bender, Bennardo, Beller 2005: 220).

Another interesting difference between English and German concerning the conceptualization of time can be observed in the following examples. Even though in both languages, the abstract domain of time of the day is divided into measurable units, i.e. hours and minutes, speakers of the two languages may interpret them differently:

12. a. It's half seven. (= 7:30)  
b. It's half past seven. (= 7:30)  
c. Es ist halb sieben. (= 6:30)  
13. a. It's quarter past two. (= 2:15)  
b. Es ist viertel drei. (= 2:15)  
c. Es ist Viertel nach zwei. (= 2:15)

Certainly, examples 12.a and 13.b are colloquial expressions and not commonly used by all speakers of English or German, respectively. More importantly, 12.a may be

regarded as the short form of *It's half past seven*. In both languages the more formal formulations would be *sieben Uhr dreißig* 'seven thirty' or *zwei Uhr fünfzehn* 'two fifteen'. Thus, speakers' cognition is not limited by their language, and the concept of time can be understood equally well by speakers of both languages. The examples rather illustrate that languages provide different perspectives, and that even within one language system some kind of relativity can be observed. As learning a second language implies reconsidering the structures and conventions of the first language and involves comparing them to the second language, examples 12 and 13 will now be discussed in more detail.

The sentence in example 12.a, *It's half seven*, may be regarded as the short form for 12.b, *It's half past seven*. German speakers do not have a corresponding term for *half past*. It would not be acceptable to say *halb nach sieben*. When German speakers say *halb sieben*, as in example 12.c, they do not mean *half past seven*. For them, *halb sieben* means that the first half of the seventh hour of the day has passed, i.e. it is 6:30. Similarly, in example 13 English speakers say *quarter past two*, whereas speakers of German may refer to this point in time as *viertel drei*, meaning that the first quarter of the third hour of the day has passed, i.e. it is 2:15.

These examples demonstrate that the English and the German language suggest different routes of interpreting the same situation, corresponding to the philosophical question whether a glass is viewed as half full or half empty. What is important, however, is not that one expression may be more 'appropriate' than the other one, but that any situation can be viewed from different angles. No conclusions about the speakers' psychological attitudes or cognitive abilities can be drawn from these examples. And if it was possible to draw conclusions, they would have to be based on sound empirical evidence, not only on assumptions.

It has been demonstrated that the abstract domain of time is often conceptualized in terms of more concrete concepts, such as money or space. Even though English and German speakers often use similar conceptual metaphors, some instantiations differ. What is more, speakers of both languages and cultures use the same system of dividing time into hours and minutes, but in some cases the two languages provide different points of view and thus suggest different interpretations of time. In other words, when speakers prepare to speak they pay attention to slightly different aspects of reality, depending on the underlying metaphors they use.

### 3.1.2. Prepositions

In both English and German, time and space are expressed with the aid of prepositions. In the previous chapter it has been demonstrated that sometimes prepositions are used similarly in English and in German, but in some cases this is not true. In this chapter it will be claimed that in their prototypical meaning prepositions are used similarly in English and German, but not in their peripheral meaning. Discussing all prepositions would go beyond the scope of this paper. Thus, the focus will be put on one preposition, i.e. *over*. Before that, however, some preliminary considerations need to be outlined.

Lindstromberg claims that the “most typical preposition is a word which says where one physical thing is located in relation to another” (2010: 6). For example:

14. The traffic lights hang *over* the junction

In example 14, *over* functions as a preposition of space, *the traffic lights* are the subject or trajector (TR) of the preposition, and *junction* is the landmark (LM) (cf. Langacker 1987: 231) of the preposition. As Taylor notes, prepositions

may profile different aspects of the TR-LM relationship. An important distinction is between a static and a dynamic relationship. If the relationship is a static one, the preposition denotes the place of the TR. Alternatively, the relationship may be a dynamic one of goal (the end-point of the TR’s movement is profiled), source (the starting-point of the TR’s movement is profiled), or path (some or all of the trajectory followed by the TR is profiled) (Taylor 2003: 113).

In other words, a plethora of meanings are associated with prepositions, depending on the context in which they are used. According to Rauh, “the preposition *over* occurs in a variety of different contexts and seems to have a semantically rich structure” (1991: 288). This is why it has been selected for discussion in this chapter. The use and function of *over* will be compared to the German preposition *über*. Prototypically, *over* is used as a spatial preposition. However, no clear distinction can be drawn between spatial and temporal prepositions, as “a temporal (~ ‘time related’) usage of a preposition tends to develop from an existing spatial meaning that may remain robust, or at least linger on” (Lindstromberg 2010: 7). In the following comparison, the prototypical as well as the peripheral uses of *over* and *über* will be compared.

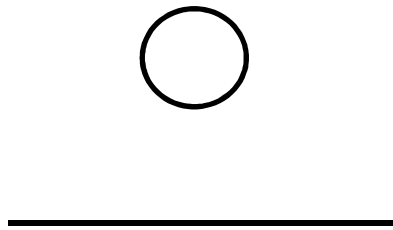
First, the English preposition *over* will be analysed:

15. a. The traffic lights hang *over* the junction.
- b. The helicopter flew *over* the mountain.

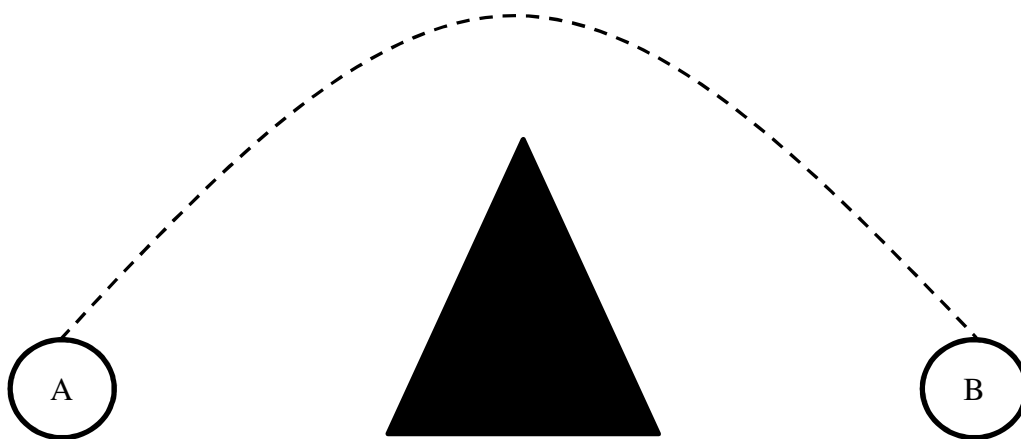
- c. Sue jumps *over* the fence.
- d. Tom fell *over* a cable.

According to Taylor’s definition, example 15.a, *The traffic lights hang over the junction*, denotes a static relationship between the trajectory and the landmark (2003: 113). The other examples, however, represent dynamic relationships. Example 15.b, *The helicopter flew over the mountain*, is somewhat ambiguous. It may either describe a static relationship (figure 2) – if the helicopter remains in a certain position over the mountain to rescue a mountaineer, for instance – or a dynamic relationship of path – if the helicopter flies from one valley to the next one. In other words, *over* may express a movement from a point A to a point B, as schematically illustrated in figure 3.

**Figure 2 Preposition *over* – static meaning**



**Figure 3 Preposition *over* – dynamic meaning**



Similarly, example 15.c, *Sue jumps over the fence*, depicts the path of Sue’s movement (cf. figure 3). In example 15.d, *Tom fell over a cable*, again, the path of the movement is profiled. All these examples illustrate the prototypical uses of *over*. As can be observed

in the German translations of the English sentences in example 15, the prototypical meanings and uses of *over* and *über* are very similar in the two languages:

16. a. Die Ampel hängt *über* der Straße.
- b. Der Helikopter flog *über* den Berg.
- c. Sue springt *über* den Zaun.
- d. Tom fiel *über* das Kabel.

However, there are many instances in which the meaning of *over* is extended beyond the proto-scene. In the following examples *over* is used metaphorically (cf. Tyler and Evans 2004: 257-276; Rauh 1991: 288-294; Taylor 2003: 112-122), and – as will be discussed – in some cases differently from German *über*:

17. a. We will stay in Vienna *over* the weekend.
- b. Winter is *over*.
- c. Switch *over* to Channel 4.
- d. She lost control *over* her car.
- e. Peter got *over* his sister's death.
- f. Floridsdorf is *over* the river from Döbling.
- g. Julia turned *over* the page.
- h. Ted walked all *over* the city.

In examples 17.a and 17.b, the meaning of the spatial preposition *over* is mapped onto a temporal concept. To be more precise, in example 17.a, *over* is used correspondingly to example 15.b, *The helicopter flew over the mountain*, only not in terms of space but in terms of time. *Staying in Vienna over the weekend* means moving from the temporal point A, i.e. the beginning of the weekend, to point B in time, i.e. the end of the weekend, similarly to the spatial concept of *over* as illustrated in figure 3. In other words, in example 17.a *over* is used as a spatial metaphor for time. In example 17.b *over* is also used in a temporal metaphorical sense. However, the focus is not so much on the whole temporal path from point A to point B, but rather on the goal, i.e. the end-point of the trajector's movement (cf. Taylor 2003: 113). In other words, in *Winter is over*, the focus is rather on point B, i.e. the end of winter. Interestingly, German speakers also extend the meaning of *over* and use the preposition to refer to temporal situations. Examples 18.a and 18.b correspond to the English sentences in 17.a and 17.b:

18. a. Wir bleiben übers Wochenende in Wien.  
b. Der Winter ist vorüber.

All the other examples (17c-17h) are spatial metaphors or peripheral conceptualizations of *over*. In example 17.c, *Switch over to Channel 4*, *over* is used in a rather prototypical way, if television channels are considered as some kinds of virtual places. Interestingly, however, *über* is not typically used in German in this context. Most German speakers would say something similar to example 19.a. Nevertheless, it cannot be denied that at least in some German dialects people may say something similar to 19.b:

19. a. Schalte auf Kanal 4 *um*.  
b. Schau einmal auf Kanal 4 *hinüber* / *rüber*.

In example 17.d, *She lost control over her car*, it is more difficult to reveal a connection to the prototypical meaning of *over*. In this case, the relationship between the trajector, i.e. *she*, and the landmark, i.e. *her car*, is one of power, not of spatial orientation. In other words, there is a transfer of the trajectory-landmark relationship from the domain of vertical space to the domain of power relations. As Taylor puts it

[p]ower relations [...] are typically conceptualized in terms of vertical space. Someone with power is 'higher' than someone without power. Hence a preposition denoting a higher vertical location comes to be employed to encode a position of greater power (Taylor 2003: 115).

Another peripheral use of *over* is exemplified in sentence 17.e, *Peter got over his sister's death*. The meaning of *over* in this sentence is related to that in example 15.c, where *over* denotes a path surmounting an obstacle. The metaphor is based on conceptualizations of life as a path, and difficult events in life as obstacles. Interestingly, even though examples 17.d and 17.e are rather abstract interpretations of prototypical *over*, in German the meanings of *über* are extended in similar ways (20.a corresponds to 17.d and 20.b corresponds to 17.e):

20. a. Die verlor die Kontrolle *über* ihr Auto.  
b. Peter ist *über* den Tod seiner Schwester hinweg.

One last example that will be referred to now where English and German use *over* and *über* in an analogous manner is example 17.f, *Floridsdorf is over the river from Döbling*. The German equivalent would be:

21. Floridsdorf liegt von Döbling aus *über* dem Fluss.

Again, the concept behind the use of *over* and *über* is rather peripheral. It may be argued that it corresponds to the use of *over* as illustrated in figure 3. But in this case, the focus is not on the path itself, but rather on point B, the goal. On the other hand, it may be argued that the use of *over* corresponds exactly to figure 3, as the observer's view would go from A, i.e. Döbling, *over* the river, to point B, Floridsdorf.

More importantly, examples 17.g and 17.h do not have German counterparts. Considering example 17.g, *Julia turned over the page*, German speakers would say:

22. Julia blätterte *um*.

There is simply no German expression including the preposition *über* that could be used to translate sentence 17.g. The same is true for example 17.h, *Ted walked all over the city*. The meaning extensions of *over* mentioned in these two examples are only possible in English, but not in German. However, in the following example it is the other way around:

23. a. Ich fahre *über* Linz nach Salzburg.

b. I am going to Salzburg *via* Linz.

Even though a rather central meaning of *über* is used in example 23.a, English speakers use a different expression, i.e. *via*.

Recalling example 15.b, *The helicopter flew over the mountain*, another interesting difference between English and German must be addressed. It was mentioned above that the English expression may be interpreted in two ways, either as a static or a dynamic relationship between the helicopter and the mountain. In German, on the other hand, there is no such ambiguity, as the cases indicate whether a static or a dynamic relationship is denoted:

24. a. Der Helikopter flog *über den* Berg. (accusative case)

b. Der Helikopter flog *über dem* Berg. (dative case)

The accusative case in example 24.a signifies a dynamic relationship, whereas the dative case in example 24.b signifies a static relationship. In other words, English speakers tend to express themselves vaguely, whereas German speakers are compelled to choose between the two possibilities in example 24. This is another case where language guides speakers' attention. However, the case system will be discussed in a separate chapter.

To sum up, prepositions prototypically express spatial relations between objects. However, in many cases their meaning is extended by use of temporal or other metaphors. The prototypical meanings of the English preposition *over* are very similar to the German preposition *über*. Both languages even share many conceptual metaphors. However, it has also been demonstrated that some peripheral conceptualizations are only common in one of the two languages. Taylor suggests that the “German cognate of *over*, *über*, as a path preposition, has a range of meanings very similar to English *over* [...] In fact, the meaning chain goes further in German than in English” (2003: 118). It may be difficult to validate this claim as prepositions are semantically extremely complex. More importantly, in any case, it has been demonstrated that even though English and German are two closely related languages and share many concepts and metaphors, sometimes speakers of one language extend the metaphorical meaning of a preposition more widely than speakers of the other language. In these cases, speakers pay attention to slightly different aspects of reality.

### 3.1.3. Motion events

Cadierno points out that speakers of different languages “differ with respect to how much and what kind of information they provide when referring to particular spatial situations involving motion” (2004: 13). For example, it has been demonstrated that in so-called satellite-framed languages the verb tends to describe the manner of movement, whereas in verb-framed languages the verb typically describes the path. Thus, it may be claimed that thinking for speaking varies systematically across languages (cf. section 2.5.1.). However, as both English and German are classified as satellite-framed languages (cf. Slobin 2004; Cadierno 2004: 17), the focus in this chapter will be on a different aspect. It will be demonstrated that in some cases English and German speakers conceptualize motion events from different perspectives, at least in the process of thinking for speaking. In other words, as a result of the different language structures, the quality and quantity of information that is provided by the speakers differ.

The different semantic meanings of the two motion verbs *bringen* ‘to bring’ and *nehmen* ‘to take’ in German and in English will be analysed now. In English, there is a rather clear-cut semantic difference between *to bring* and *to take*, whereas in German the boundary between *bringen* and *nehmen* is fuzzy. For reasons of clarity the meanings of the two English verbs shall be compared first:



25. a. *Bring* your camera to my party.  
b. George *brings* many years of experience to his new post.  
c. Will you *take* the car to the garage?  
d. John *took* his grandmother to the station yesterday.

*To bring* denotes a movement towards the speaker or/and emphasizes the endpoint of the motion event. In example 25.a, someone is asked to *bring* their camera to the speaker's party. The focus is on the endpoint of the movement. In other words, the speaker is neither interested in where exactly the camera comes from, nor in how it gets to the party. It is only important that the camera is there at the speaker's party. In example 25.b, there is no movement towards the speaker, but towards the endpoint of a temporal path. In a metaphorical sense, George brings everything he has learned in his former jobs to the new one. In example 25.c, on the other hand, *take* expresses a movement away from the speaker. The implied starting point of the motion event is somewhere near the speaker. The focus is not only on the endpoint, i.e. the garage, but also on the complete path from the listener's and the car's current position to the garage. Finally, if the speaker refers to a third entity or person who moves something or someone from one place to another one that is not related to the speaker, *to take* is used, as illustrated in example 25.d. To sum up, the motion verb *to bring* typically denotes a movement towards the speaker or a focus on the endpoint of the motion event, whereas *to take* either describes a movement away from the speaker or refers to a motion event that is spatially not directly related to the speaker.

Certainly, *bring* and *take*, as well as *bringen* und *nehmen* may be combined with prepositions, adverbs or prefixes. In combination with these words the motion verbs' meanings may contradict the rules established in the previous paragraph to some extent. However, these constructions represent rather peripheral meanings of the words under consideration. And as the saying goes, exceptions prove the rule:

26. a. Bring the newspaper *away* from the fireplace.  
b. I brought some valuable advice *away* from the meeting.

In examples 26.a and 26.b, *bring* is combined with *away*. At first view, this is a contradiction to the rule that says *to bring* denotes a movement towards the speaker. On closer examination, however, in example 26.a the endpoint of the movement is highlighted, i.e. *away from the fireplace*. What is more, bringing *the newspaper away*

*from the fireplace* must not necessarily be, but may be a motion event towards the speaker. Similarly, in example 26.b the focus is on the endpoint of the metaphorical motion event. It may be argued that a movement from the meeting room towards the situation in which the speaker utters the sentence is denoted. However, most of the time the rule mentioned before is valid.

All in all, a plethora of lexemes may be combined with *to bring*, and rather abstract metaphorical meanings may be attributed to the motion verb. The same is true for German *bringen*. Consider, for example, the meaning of *umbringen* 'to kill'. However, in this comparison of English and German the focus will be on the prototypical meanings of the motion verbs under consideration, i.e. spatial movement.

At first view, German *bringen* and English *to bring* are etymologically closely related verbs and seem to be used in very similar ways:

27. a. Du *bringst* mir die Unterlagen.

b. Ich *bringe* dir die Unterlagen.

Similarly to the English meaning of *to bring* discussed in example 25.a, in example 27.a *bringst* describes a movement towards the speaker. In example 27.b, the focus is on the end of the movement. On closer examination, however, in German no clear distinction can be drawn between the meanings of *bringen* und *nehmen*. While in English *to bring* is only used when there is a movement towards the speaker or at least a focus on the endpoint of the movement, in German the verb *bringen* may denote both kinds of motion events, towards the speaker or away from the speaker. Interestingly, *mitbringen* can even have the same meaning as *mitnehmen*:

28. a. Wenn du kommst, *bring* die Unterlagen mit.

b. Wenn du kommst, *nimm* die Unterlagen mit.

Examples 28.a and 28.b basically have the same meaning: The listener is asked to bring the documents to the speaker. However, example 28.b is somewhat ambiguous. Its second meaning may be that the listener is asked to come to the speaker, pick up the documents from there and take them away. This ambiguity would not exist in English as there is a clearer semantic distinction between *bring* and *take* than between *bringen* and *nehmen*.

Basically, in German the distinction between movement towards and movement away from the speaker is not expressed with a certain verb. It is most often expressed with the aid of additional words or prefixes, as illustrated in the following example:

29. a. Du *sollst* die Unterlagen hinbringen.

b. Du *sollst* die Unterlagen herbringen.

In examples 29.a and 29.b the direction of the movement is indicated with the aid of the prefixes *hin* and *her*. *Hinbringen* (example 29.a) denotes a movement away from the speaker, whereas *herbringen* (example 29.b) denotes a movement towards the speaker.

The comparison of *to bring*, *to take*, *bringen* and *nehmen* is highly complex. With the aid of the examples in this chapter, however, it was possible to illustrate that English speakers draw a clearer distinction between the semantic meaning of the verbs *to bring* and *to take* than do German speakers between *bringen* and *nehmen*. In order to minimize ambiguity, German speakers thus use prefixes or combine verbs with other words to indicate the direction of a movement. It may be argued that in this respect speakers of the two languages use different points of views in the process of thinking for speaking. In order to support this claim, a similar but clearer example shall finally be discussed:

30. a. Komm *herein*!

b. Come *inside*!

31. a. Geh *hinein*!

b. Walk *inside*!

In this case, the point of view of the speaker is relevant in German. In example 30.a, the speaker is already inside and asks someone else to come inside too, i.e. *herein*. In example 31.a, on the other hand, the speaker is not inside and tells someone else to go inside, i.e. *hinein*. In other words, in the process of thinking for speaking, German speakers pay attention to their own position in relation to the listeners and in general. In contrast, English speakers do not make this distinction. In both examples, 30.b and 31.b, they use the word *inside*. Thus, it may be claimed that in the process of thinking for speaking they do not pay as much attention to their own position as German speakers do. Here are three more German word pairs that illustrate this difference between the two languages:

32. a. *hinauf* – *herauf*

- b. hinunter – herunter
- c. hinaus – heraus

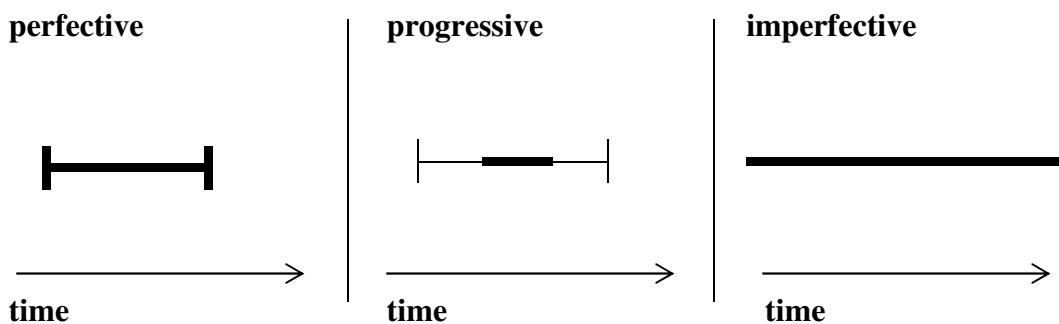
To sum up, motion events are encoded somewhat differently in English and German. In the process of thinking for speaking speakers of the two languages thus pay attention to different salient aspects of reality, such as the speakers’ spatial positions in relation to other people or objects. As will be demonstrated in the following chapter, the same is true for the conceptualization of events in time.

### 3.1.4. Aspectuality

Another conceptual difference between the two languages is that in German there is no direct equivalent to the English progressive aspect. For the sake of simplicity, only the present progressive aspect will be analysed in detail now, in place of all the other progressive tenses.

The progressive aspect is intuitively defined “in terms of ‘zooming in’ and taking an ‘internal view’ of a bounded event” (Langacker 2001: 12). More precisely, however, Langacker describes it as “imposing an immediate temporal scope that excludes the endpoints of the perfective process it applies to” (2001: 12). In figure 4 the differences between perfective, progressive and imperfective are illustrated (Langacker 2001: 12):

**Figure 4 Aspectuality**



In contrast to the perfective aspect, which denotes a complete process with a clear starting point and an endpoint, the progressive aspect highlights a certain part of that process. On the other hand, the difference between the progressive aspect and the imperfective aspect is that a progressive expression creates an imperfective process by drawing attention to the interior of a process that is generally recognized as a bounded

process (cf. Zhang 1995: 17-21). The following example will illustrate these differences:

- 33. a. I *live* in Manchester.
- b. I *am living* in Manchester.

In example 33, both the simple present (33.a) and the present progressive (33.b) denote a current residence in Manchester. However, the latter portrays it as part of a sequence of places of residence. Also, example 33.b implies that the residential episode is of limited duration. In other words, even though the core meaning is the same, i.e. a current residence in Manchester is denoted, in both sentences the situation is construed in two different ways.

As mentioned in chapter 2.3, German speakers do not make this distinction between simple and progressive aspects. Certainly, if they explicitly want it they can also express the two different meanings:

- 34. a. Ich *wohne* in Manchester.
- b. Ich *wohne zur Zeit* in Manchester.

Basically, example 34.a corresponds to 33.a, and example 34.b corresponds to 33.b. However, the difference between English and German is that English speakers have to choose one of the two forms and meanings when they are in the process of thinking for speaking because of the grammatical structure of their language. In German, on the other hand, the unmarked expression would be sentence 34.a. German speakers would only add an expression, such as *zur Zeit* or *gerade*, if they explicitly pay attention to or want to draw the listeners' attention to the fact that they reside in Manchester for a limited period of time. In other words, in this example, German speakers need not pay as much attention to fact whether a process is bounded or unbounded.

### **3.2. Lexical and semantic categorization**

In this chapter it will be demonstrated that English and German speakers categorize and conceptualize objects and ideas differently. Assuming that expressions can be translated word for word into another language is a common mistake made by beginning learners of a second language. In fact, however, no expression can be translated into the other

language without losing some of its original meaning or inadvertently gaining a different meaning in the new language.

The following quote is attributed to Samuel Johnson, who published a dictionary of the English language in 1755: “[d]ictionaries are like watches; the worst is better than none, and the best cannot be expected to go quite true” (Boswell 1835: 217). This quote sums up the problems that arise when people try to translate words and texts into other languages. In other words, learning another language does not merely mean learning new expression for the same things, but learning new ways of categorizing and conceptualizing things.

Even though the English language may have more vocabulary than any other language, this does not imply that it has a word for everything. Every language has certain expressions that are unique and extremely difficult to translate into another language. As mentioned in chapter 2.3 on the theory of categorization, the German concept of

#### 35. *Zivildienst*

does not exist in English speaking cultures – at least not in the same way as in Austria – and thus does not have a corresponding term in the English language. This example demonstrates that language is closely connected to culture, and cultural differences become evident in language. Another famous example is the German word

#### 36. *Gemütlichkeit*,

which cannot be translated into a single English word. In fact, it would take several words to explain the concept in English: comfortable, cosy, inviting, warm, and hospitable. Certainly, English speakers understand the concepts *Zivildienst* and *Gemütlichkeit* perfectly well when they are explained to them. However, the lack of words for these concepts in their own language guides their attention to different aspects of the world, at least in the process of thinking for speaking.

In the following paragraphs, several examples of words and phrases that exist in only one of the two languages, or that are categorized differently in the two languages will be analysed. For example, Niemeier mentions that an

#### 37. avocado

is conceptualized as a vegetable in Germany and as a fruit in other languages, which just goes to show that the boundaries between these categories are fuzzy” (Niemeier 2004:

103). Indeed, the distinction between fruit and vegetables is arbitrary and culture-dependent (cf. Drösser 2012). Certainly, in both English and German avocados will be regarded as rather peripheral members of the categories fruit and vegetables, respectively. The point is that the two languages cut up the meaning continuum of fruit and vegetables in somewhat different ways and thus establish different categories. Similar examples can easily be found. Niemeier mentions the following one (cf. Niemeier 2004: 101):

- 38. a. Nebel, Dunst
- b. haze, mist, fog

Even though German and English speakers physiologically experience weather in the same way, German speakers generally cut up a certain weather phenomenon in *Nebel* and *Dunst*, as in example 38.a. English speakers, on the other hand, would refer to this continuum with the three different words in example 38.b: *haze*, *mist*, and *fog*. Niemeier claims that “the German language has cut up the continuum at different points than the English language, and German speakers thus do not talk about exactly the same concepts as English speakers do” (2004: 101). In other words, every language suggests a particular way of categorizing and conceptualizing objects and ideas, at least in the process of thinking for speaking.

It is important, however, not to draw any hasty and wrong conclusions from this claim. In a similar example, Whorf compared the words for snow in English and in the language of the ‘Eskimos’. He claimed that

we have the same word for falling snow, snow on the ground, snow packed hard like ice, slushy snow, wind-driven flying snow – whatever the situation may be. To an Eskimo, this all-inclusive word would be almost unthinkable; he would say that falling snow, slushy snow, and so on, are sensuously and operationally different, different things to contend with; he uses different words for them and for other kinds of snow (Whorf 1940 [1956]: 216).

Whorf never provided any empirical evidence for the assumption that to an ‘Eskimo’ the different types of snow are absolutely different concepts. In weak terms, however, Whorf’s claim might be correct. In the process of thinking for speaking ‘Eskimo’ speakers categorize the different types of snow as different concepts, similarly to the differences between English and German that were illustrated in examples 38 and 39.

Later writers, however, inflated Whorf's claim and reported exaggerated numbers of words for snow in the 'Eskimo' language. For example, in an unsigned editorial in The New York Times in 1984, it was claimed that there are 100 words for snow in the 'Eskimo' language (cf. The New York Times 1984, <http://www.nytimes.com/1984/02/09/opinion/topics-well-used.html>, 10 May 2013). These unscientific exaggerations seem to be commonly accepted among many laypersons and linguists today. Based on the assumption that there are considerably more words for snow in the language of the 'Eskimos', Niemeier claims that

members of other cultures may well be able to experience the same kinds of snow but as those are not vital to their everyday lives, their languages have not lexicalized them. This does not mean that these phenomena do not exist, just that the language communities chose not to focus on these 'isolates of experience' (Niemeier 2004: 101).

Niemeier is certainly right in claiming that different language communities may pay attention to different aspects of reality because of the grammatical structures and the lexical categories that exist in their languages. However, like many other linguists, she seems to ignore the fact that in English and German there are also more words for snow than usually acknowledged in the discussion about the 'Eskimo' words for snow. Asking skiing instructors in Colorado or Austria, they will come up with various words for snow that the average English or German speaker does not know or use. Here are some words for various types of snow in English (example 39) and German (example 40):

39. graupel, needles, sleet, powder, corn, cornice, crud, firn;

40. Firn, Harsch, Bruchharsch, Matsch, Griesel, Graupel;

Thus, it would be wrong to claim that a whole language community – such as all English speakers or all German speakers – choose “not to focus on these 'isolates of experience'” (Niemeier 2004: 101). In fact, in every field of expertise, specialists, in this case skiing instructors, use certain technical terms that are not commonly used by most other speakers of their language. In other words, it may be argued that even within one language system there is some kind of linguistic relativity, as every speaker conceptualizes their fields of interest in more detail than laypeople. However, this fact does not result from linguistic or cultural differences, but simply from individuals' interest in certain fields.



To sum up, languages cut up meaning continua at different points. As a consequence, words and expressions can never be translated absolutely accurately from one language into another language. Consequently, it may be argued that speakers of different languages pay attention to different aspects of reality, at least in the process of thinking for speaking. However, it is not language alone that guides speakers' attention. Individual people's attention is also guided by their interest in certain aspects of reality. In order to demonstrate the influence of language on speakers' attention in everyday situations rather than in specialist fields, the following examples have been selected. They refer to words from the core vocabulary.

Hawkins claims that "German regularly forces a semantic distinction within a lexical field where English uses an undifferentiated and broader term" (Hawkins 1986: 28). Here are some examples (cf. Hawkins 1986: 29; König & Gast 2007):

- 41. a. to know
- b. wissen – kennen – können
- 42. a. to stop
- b. stehenbleiben — aufhören – aufhalten

In German, there are three words that correspond to the English word *to know* (example 41), reflecting the difference between knowing something through understanding (*wissen*), knowing something through recognition (*kennen*), and being able to do something (*können*). Similarly, the English verb *to stop* (example 42) covers a wide range of semantic meanings that are explicitly denoted in German: stopping to move (*stehenbleiben*), stopping to do a certain activity (*aufhören*), causing or forcing somebody or something to stop moving or doing something (*aufhalten*).

In both examples (41 and 42), the German words are very much restricted in their semantic meaning and cannot be used interchangeably. In contrast, a single English verb extends over the complete semantic range that is covered by several German words. It may be argued that alternative and correspondingly specific compound verbs do exist in English. However, the important difference is that in German the relevant semantic distinctions must be drawn in any case, due to the grammatical structures of the language, whereas in English more specific verbs may be used optionally. Thus, in the process of thinking for speaking German speakers are compelled to select semantically more restricted verbs than English speakers and thus pay more attention to these semantic differences.

Another interesting difference between English and German is the semantic categorization of gender. In chapter 2.5.3.1, the role of language as spotlight in connection with the conceptualization of gender in various languages was discussed. In chapter 2.3, the connection between a word's position in a categorization hierarchy and its grammatical gender in German was analysed. Even though it may be true that abstract words in German tend to be neuter, there are a plethora of exceptions to this rule. Basically, grammatical gender in German seems to be arbitrarily assigned to words. Mark Twain parodies this fact in his "Tale of the fishwife and its sad fate" (cf. Twain 1880 [2000]: 326-327). The following quote is an excerpt from that text. Note that the nouns are capitalized "in the German (and ancient English) fashion" (Twain 1880 [2000]: 326):

It is a bleak Day. Hear the Rain, how he pours, and the Hail, how he rattles; and see the Snow, how he drifts along, and of the Mud, how deep he is! Ah the poor Fishwife, it is stuck fast in the Mire; it has dropped its Basket of Fishes; and its Hands have been cut by the Scales as it seized some of the falling Creatures; and one Scale has even got into its Eye, and it cannot get her out. It opens its Mouth to cry for Help; but if any Sound comes out of him, alas he is drowned by the raging of the Storm. And now a Tomcat has got one of the Fishes and she will surely escape with him. No, she bites off a Fin, she holds her in her Mouth – will she swallow her? No, the Fishwife's brave Mother-dog deserts his Puppies and rescues the Fin – which he eats, himself, as his Reward (Twain 1880 [2000]: 326-327).

While in English the pronouns *he* and *she* are typically used to refer to male or female persons, in German the pronouns *er*, *sie* and *es* may refer to people as well as to objects. Twain transfers the grammatical genders of German nouns into English and creates a text that is difficult to comprehend, particularly for English speakers. Two sentences from Twain's text are highly interesting and will be discussed in detail:

43. And now a *Tomcat* has got one of the Fishes and *she* will ...

44. No, the *Fishwife's* brave Mother-dog deserts *his* Puppies and ...

These two sentences sound rather illogical in English. A *tomcat* is a male cat and thus in example 43 the pronoun *he* would be expected. Conversely, a *mother-dog* is definitely female and should be referred to by the pronoun *she* in example 44. The following examples (45.a and 45.b) are possible German translations of the English sentence *And not a tomcat has got one of the fish and it will ...*:

45. a. Und jetzt hat *eine Katze* einen der Fische und *sie* wird ...

b. Und jetzt hat *ein Kater* einen der Fische und *er* wird ...

In fact, the ‘unmarked’ term for *cat* – no matter whether it is male or female – in German is *die Katze*. In other words, when German speakers see a cat on the street and want to talk about it they would use the female form *die Katze*. In this case, the sex of the cat has either not been identified or is not of interest to the speakers. Only when the speakers want to highlight the fact that the cat is male, they would use the male form, i.e. *der Kater*. Similarly, English speakers only use the term *tomcat* when they want to draw attention to the fact that the cat is male. In other words, it may be argued that in this case English and German are not as different as Twain’s text implies.

Analysing example 44 is more complicated. First of all, a one-to-one translation of *Mother-dog* is not possible. German speakers would not say *der Mutterhund*. The German word would either be *das Muttertier* ‘mother-animal’ or *die Hundemutter* ‘dog-mother’. What is more important, however, is that in contrast to the category *cats*, the ‘unmarked’ term for *dog* is the male form, *der Hund*. When German speakers say *die Hündin*, they want to draw special attention to the fact that the dog is female. Again, the same is true in English, as the ‘unmarked’ term is *dog*, and the ‘marked’ term would be *bitch*.

At the risk of ruining Twain’s valuable humoristic text, it has been demonstrated that in both languages, in the process of thinking for speaking, speakers typically conceptualize cats as female and dogs as male animals. Interestingly, there is also a correlation between animals that are grammatically neuter in German and their English counterparts:

46. a. das Pferd: die Stute, der Hengst

b. the horse: the mare, the stallion

In both languages different words are used for the animal in general, for its male and its female representatives. In German, *das Pferd* is neither male nor female. Thus, it can be seen as the ‘unmarked’ term. The term for a female horse is *die Stute*, for a male horse it is *der Hengst* (example 46.a). However, none of the latter terms can be used to refer to horses in general in the way *die Katze* is used to refer to both male and female cats. Similarly, in English the general term is *horse*, a female horse is called a *mare*, and a male horse is called a *stallion* (example 46.b).

To sum up, in the process of thinking for speaking grammatical gender may guide speakers' attention. In German this influence is more obvious than in English as the grammatical gender is expressed explicitly. However, even though in English grammatical gender is not as salient as in German, it has been demonstrated that words like *cat* and *dog* guide speakers' attention. English speakers, like German speakers, tend to conceptualize cats as female and dogs as male animals. Certainly, this does not result from language alone, but also from cultural conventions. As mentioned before, language reflects cultural conventions.

### 3.3. Structure of information

In this chapter the different ways of structuring information will be compared. The focus will be on the effects of the German case system on word order, and on the position of verbs in English and German sentences.

Smith challenges the "usual assumption that morphological cases are mere grammatical markers without inherent semantic content" (1993: 531). He demonstrates that the dative and accusative cases in German "can be analysed as meaningful in encoding fundamental cognitive categories" (Smith 1993: 531). In other words, it can be claimed that in the process of thinking for speaking German and English speakers' attention is guided in different ways. For instance, in example 24 in section 3.1.2 on prepositions it was demonstrated that case markings in German reduce ambiguity. For reasons of clarity and comprehensibility, example 24 will be reproduced as example 47:

- 47. a. Der Helikopter flog *über den* Berg. (accusative case)
- b. Der Helikopter flog *über dem* Berg. (dative case)

It was explained that because of the case system German speaker have to choose between the two meanings illustrated in example 47.a and 47.b, while English speakers do not draw attention to this difference. Both sentences would be expressed as *The helicopter flew over the mountain* in English. The English sentence would thus be more ambiguous than the German ones. This example demonstrates that the case system conveys semantic meaning and should not be regarded as not pure form. Because of these differences between the two languages speakers conceptualize situations differently in the process of thinking for speaking, and listeners pay attention to different aspects of the world.

However, the case system does not only reduce ambiguity. It also allows German speakers to organise words more freely in sentences. For example, Hawkins reports about an experiment in which he asked native speakers of German and English to judge the acceptability of various permutations of the sentences in example 48:

- 48. a. “Peter gab zu Weihnachten dem Bruder das Buch“ (Hawkins 1986: 37).
- b. “Peter gave the book to his brother for Christmas” (Hawkins 1986: 37).

In his experiment, the verbs were kept in their “maximally grammatical position (i.e. second position for German, second or third position for English)” (Hawkins 1986: 38). The other four parts of the sentences were permuted: *Peter*, *his brother*, *the book*, and *for Christmas*. Hawkins found that with the appropriate contrastive stress, all 24 German sentences were generally accepted by the native speakers. English native speakers, on the other hand, only accepted ten of the 24 sentences (cf. Hawkins 1986: 37-40). Assuming that word order draws listeners’ attention to certain parts of a sentence, German speakers have a greater choice in highlighting the individual parts of a sentence. In other words, in the process of thinking for speaking, German speakers can more freely decide which part of a sentence they want to stress.

Another striking difference between English and German is the position of the verb in a sentence. In English sentences the subject is at the first position, followed by the verb and the object. In contrast, in a German sentence the finite verb is always at the second position, while all the other parts of the sentence can be moved around freely, as explained by Hawkins (cf. 1986: 37-40). More interestingly, however, when a predicate comprises more than a finite verb, the other elements appear at the very end of the sentence:

- 49. a. Die Regierung *will* die Steuern *erhöhen*.
- b. Die Regierung *hat* die Steuern *erhöht*.
- c. Die neue Regierung *wird* die Steuern erhöhen *wollen*.

In the sentences in example 49, the infinitive (49.a), the past participle (49.b), and the modal auxiliary (49.c) appear at the end of the sentences. In contrast, English speakers provide the same information immediately after the subject:

- 50. a. The government *will raise* taxes.
- b. The government (*has*) *raised* taxes.
- c. The new government *will want* to raise taxes.

In German even sentences like the following one are acceptable:

51. Die Regierung *will* im Laufe des nächsten Monats und mit teilweiser Unterstützung der Opposition im Rahmen des nicht unumstrittenen Sparpakets die Steuern auf Getränke mit einem Alkoholgehalt von mehr als drei Prozent *erhöhen*.

German speakers can provide very much information between the finite verb and the infinitive at the end of the sentence. In contrast, English speakers do not formulate similar sentences to the one in example 51. As a result of this fact and the free word order in German it may be argued that in the process of thinking for speaking, German speakers are more flexible and can add spontaneous ideas or remarks to the sentence more easily and immediately as they come to their mind. However, this is only true for the sentence in example 51. No general conclusions can be drawn from a single sentence. English speakers may use different strategies to add spontaneous remarks to a sentence. It is important to note, however, that grammar is meaningful and that every language guides its speakers in different ways in the process of formulating thoughts.

### 3.4. Pragmatic aspects

In this chapter the difference between English and German will be discussed under the heading *pragmatic aspects*. To be more precise, the Du/Sie distinction in German and the lack of an English equivalent will be addressed.

In the German language, friends and family are addressed with the term *du*, while strangers and persons of authority are typically addressed with the term *Sie*. In other words, *Sie* is the more respectful expression, and at the same time it indicates distance between the speaker and the person who is addressed. In English no such distinction is made and the word *you* is used to address a friend as well as the president, for example. The definitions of *du* and *Sie* create the impression that in German it is always clear which term should be used. However, it always depends on the situation, on how often the two people have met before, where they meet, how old they are, how seriously they take the distinction between *du* and *Sie*, and so on. It may be argued that in case of doubt *Sie* should rather be used than *du*, but this rule is not always helpful. For example, depending on the situation, using *Sie* may sometimes not be interpreted as a sign of respect but as a sign of dissociation. Generally speaking, in German there is a tendency

to extend the use of *du*. On the other hand, *Sie* tends to be used in very formal situations only.

However, the difference between *du* and *Sie* is another example that illustrates the role of language in guiding speakers' attention in the process of thinking for speaking. Certainly, English speakers usually also use a more formal language when they speak to persons of authority. German speakers, however, have to analyse their relation to the person they address much more carefully, and additionally have to pay attention to the aspects mentioned above. For example, they have to evaluate whether the other person takes the distinction between *du* and *Sie* seriously or not. It may be claimed that German speakers could evade the problem by avoiding addressing the other person directly. For example, they could use passive constructions or indefinite pronouns instead. This strategy may work for some time, but in the long run German speakers have to decide whether they address the other person with *du* or *Sie*. In other words, the German language compels its speakers to pay attention to aspects that help them evaluate their relation to the person they address. In contrast, the English language does not make this distinction and thus does not guide speakers' attention in this direction.

### **3.5. Idioms and metaphors**

Idioms and metaphors exist in all languages worldwide. However, there is no clear boundary between these two figures of speech. The most striking difference is probably that idioms are fixed figurative phrases on which a speech community has agreed, while metaphors may be invented freely by any speaker. Similarly to metaphors (cf. chapter 3.1.1), idioms are used to describe certain domains in terms of other domains. In some cases, the figurative meanings of idioms are completely detached – at least at first sight – from their literal meanings, as in the following example:

52. to kick the bucket (= to die)

Kövecses, however, mentions that “most idiomatic expressions are based on conceptual metaphors and metonymies” (2001: 88). In other words, the figurative meanings of idioms are very often transparent and can be inferred from the literal meanings of the words they consist of, as in the following example:

53. to play with fire

In contrast to example 52, the phrase *to play with fire* can be related directly to the literal meaning of the words it consists of. It is in fact basically a metaphor that refers to the idea that fire can be dangerous and should be handled carefully. The source domain is fire, the target domain is danger. According to the definition mentioned above, it is at the same time an idiom, as English speakers relatively frequently use it as a fixed expression.

Considering the source domains of idioms, Kövecses reports that at least in English those idioms are “most common (maybe in both senses of common) that are based on the most directly experienced source domain. This source domain is the human body” (2001: 88).

Idioms illustrate that language, culture and cognition are closely connected. In contrast to metaphors, which basically anybody can invent spontaneously and according to their needs, idioms are fixed phrases, as mentioned above. The latter are thus more closely connected to the language as such. Certainly, idioms – like metaphors – guide speakers’ attention in the process of thinking for speaking, and every language uses different idioms. Sometimes, however, two languages share idioms that are based on the same conceptual metaphor. Considering the similarities and differences of metaphors in different languages, Kövecses distinguishes between three types of relations: “[1] same literal meanings, same metaphor; [2] different literal meanings, same metaphor; [3] different literal meanings, different metaphors” (Kövecses 2001: 113). The following three examples have been selected to illustrate these relations:

- 54. a. to get cold feet  
b. kalte Füße bekommen
- 55. a. to shoot oneself in the foot  
b. sich selbst ins Knie schießen
- 56. a. It’s raining cats and dogs.  
b. Es schüttet aus Kübeln.

In example 54, the English and German idioms clearly have the same literal meanings and are based on the same conceptual metaphor. In contrast, in example 55 different words are used to express the same conceptual metaphor. In both cases (55.a and 55.b), the basic idea is that a person uses a firearm carelessly and shoots at themselves. However, in the English idiom the person shoots themselves in their *foot*, while in the German idiom they shoot themselves in the *Knie* ‘knee’. The metaphor may be used in



any situation in which someone is in control of a powerful tool – also in abstract terms – but acts carelessly and eventually harms themselves with that tool. Finally, in example 56 two completely different idioms are used in English and German to express the same meaning. The two expressions consist of different words and are based on different conceptual metaphors.

It has been illustrated that idioms and metaphors guide English and German speakers' attention differently as they create different mental images in the speakers and listeners. Even though some idioms are very similar in English and German, there are many cases in which the English idioms differ to a greater or lesser extent from the German ones. As idioms are fixed expressions, in the process of thinking for speaking speakers of the two languages draw on different repertoires of figurative images.

### **3.6. Concluding remarks**

It has been demonstrated that language guides speakers' thoughts in the process of thinking for speaking. In some situations, even the two closely related languages English and German suggest different perspectives on the world and draw speakers' and listeners' attention to different aspects of reality. Even though any thought can basically be expressed in any language, the structures of a language sometimes compel speakers to express more information than speakers of other languages would have to provide to the listeners. All in all, the surface forms of English seem to be more ambiguous and tend to be vaguer than the German surface forms. It has also been illustrated that the two languages use different metaphors and idioms, that they structure information differently, and that they cut up semantic continua at different points. Most importantly, however, the primary aim of this part was not to reveal the major systematic differences between the two languages, but to demonstrate that languages sometimes guide speakers' thoughts in different ways and draw speakers' attention to different aspects of the world.

#### **4. Implications: Second language learning and teaching**

It has been demonstrated that language, culture, and conceptualization are intertwined. As languages differ from each other in many respects, speakers of different languages focus on different aspects of reality, at least when they prepare to speak. It was not the aim of the previous sections to evaluate whether one language depicts reality more accurately than another language, or to argue that one language is in any way ‘better’ than another one. These questions cannot be answered objectively anyway. It is important, however, to realize that there are differences between languages, and that a speaker’s mother tongue only provides one way of conceptualizing and categorizing the world among many others. In other words, learning a second language means learning how members of other language communities conceptualize and express ideas, and how they categorize objects. At the same time, a second language may provide a mirror in which learners can more clearly see the conceptual and cultural conventions of their mother tongue. As Niemeier puts it, “if the categories of the mother tongue and the target language are compared, differences may become evident and beg for an explanation” (2004: 106). Thus, second language teachers should be aware of the ways in which languages influence cognition, and should raise language awareness in the classroom. It is important to understand that languages provide somewhat different perspectives on the world. According to Niemeier, learners should

discover such differences on their own and suggest explanations of their own, which is a highly motivating endeavour. Even if the explanations offered are not completely correct, finding or constructing them entails focusing on the foreign language and ‘playing’ with it, and in that way also entails an activity on the learners’ side (Niemeier 2004: 106)

The first chapter of part four (4.1) will discuss the importance of raising language awareness. Subsequently, in chapter 4.2, the advantages of a holistic approach to second language learning and teaching will be presented. It will be argued that learning a second language necessarily implies learning about the culture of the target language as well as learning new ways of conceptualizing ideas. For instance, learners need to be aware of the fact that sometimes one language compels its speakers to express a certain piece of information that speakers of a different language need not specify. For example, in chapter 3.4 the *Du/Sie* distinction in German was discussed. While German speakers have to decide whether they address a person with *Sie* or *du*, and thus have to

specify the closeness of their relationship to the other person explicitly, English speakers use the neutral term *you* in all cases.

In chapter 4.3 the challenges and potential advantages of second language learning and teaching in multilingual classes will be discussed. In a globalised world many people with different language backgrounds meet and work together. The same is true for second language classrooms around the world. Muller and Beardsome criticize “the paradoxical situation of most classrooms, where although linguistic diversity is highly prevalent it is often totally ignored” (2004: 24). Thus, in a second language classroom not only the language of instruction should be compared to the second language, but every learner should be encouraged to compare their first language to the second language (cf. Kövecses 2006). This may not only increase individual learners’ motivation but also awaken their interest in other languages. In chapter three it was demonstrated that in the process of thinking for speaking even speakers of two closely related languages, such as English and German, pay attention to different aspects of the world. In a classroom with learners who speak various mother tongues even more striking differences may be discovered.

In the last chapter of part four (4.4), the implications of linguistic relativity on second language learning and teaching will be summarised, and some suggestions for second language teachers will be offered.

#### **4.1. Raising language awareness**

Niemeier claims that “the insights connected to the concept of language awareness seem to fit well into Whorf’s thoughts on the interconnectedness of language, thought, and culture” (2004: 97). Interestingly, most of the newer approaches to language teaching view culture as an inherent part of language, and language closely related to cognition. There is a movement away from focussing on mere communicative competence and towards the reintegration of grammar into the foreign language classroom. However, grammar is no longer viewed as “pointless drudgery arbitrarily imposed, hence very hard to learn” (Langacker 2001: 6). Instead, it is generally accepted that grammar carries meaning. Additionally, in the present thesis it is claimed that language has an effect on cognition, at least in the process of thinking for speaking. Learning a second language should thus be seen as an opportunity to conceptualize ideas in new ways and

to discover the idiosyncrasies of the second language as well as of one's own first language. As Niemeier puts it,

[I]anguage awareness raising combined with foreign language awareness raising creates the potential of freeing oneself from one's own prejudiced L1 views. This is not only a linguistic aim but also a pedagogical one (Niemeier 2004: 99).

In other words, second language teachers should not only aim at teaching learners how to communicate successfully in a second language. Considering the broader context of education, they should also encourage learners to reflect on an important part of their own culture and identity, i.e. language. Several pages later, Niemeier makes clear what she means exactly:

[i]ntercultural understanding does not necessarily mean stating what is different between the cultures, but it focuses on showing that there ARE [sic] such differences, that one should be aware of them, and that one should use the foreign language accordingly, i.e., not referring to one's own cultural background but being aware of the foreign cultural background. In a nutshell, learners should especially learn to see their own language and culture as only one among many sensible experiences of the environmental world (Niemeier 2004: 105).

Rieder points out that “[I]anguage awareness begins with teacher awareness“ (2008: 180). What he means is that first of all language teachers need to understand the complex interconnection of language, culture and cognition if they want to raise learners' awareness. However, linguistic relativity is often either equated with linguistic determinism and consequently rejected by many teachers, or dismissed as negligible. As mentioned at the beginning of chapter 2, Wolff and Holmes criticize this strong-weak distinction and instead suggest that there is a “‘family’ of related proposals” (2011: 253-265). Various current approaches to linguistic relativity were discussed in chapter 2.5, and in chapter 3 the influence of language in the process of thinking for speaking was illustrated. Teachers and schoolbook editors should be aware of the renewed interest in linguistic relativity. Tyler and Evans, for example, criticize that

lexical classes, such as English prepositions, are represented in the grammars (and the textbooks based on them) in piecemeal fashion. When students (and their teachers) encounter varying uses of these forms, the systematic relations between the multiple uses remain unexplained (Tyler & Evans 2004: 257).

As discussed in chapter 3.1.2, the basic meanings of a preposition and its equivalent in a different language may be very similar. However, prepositions are also used

metaphorically, and in every language metaphorical meaning extensions of prepositions may be acceptable to a different extent. As metaphors are cognitive images, these differences between languages may be explained from a cognitive linguistic perspective. Niemeier argues that “[w]orking with metaphors in the foreign language classroom [...] helps raise the learners’ awareness for structuring principles within language and thought and for the cultural differences within this structuring” (2004: 110). Thus, language teachers need to be familiar with modern cognitive linguistic approaches to linguistic relativity.

Raising language awareness also implies pointing out that speakers of different languages categorize objects and ideas in different ways. What people consider as prototypes of a category may depend on cultural and linguistic conventions. Most importantly, one word can never be translated into another language without losing some of its original meaning (cf. chapters 2.3 and 3.2). Niemeier suggests that second language learners should learn and internalize it right from the beginning that they should not expect any one-to-one meaning correspondences or structural relations between two languages. Consequently, it will be easier for them to construct their knowledge of the second language more independently from that their first language (cf. Niemeier 2004: 105).

Finally, it must be mentioned that language teachers are proficient in the languages they teach and they may have forgotten what it feels like to learn a second language from scratch. In order to practise their own language awareness and to understand the problems that their students experience, Rieder suggests that language teachers should not stop learning new languages (cf. Rieder 2008: 189).

## **4.2. Holistic learning and teaching**

Typically, holistic learning and teaching means that cognitive as well as affective aspects should be covered, and all the learners’ senses should be activated. The approach to language teaching that is suggested in the present paper can also be called holistic, as it highlights the connections between language, culture and cognition and thus does not view them as three separate units. In other words, language is regarded to be inseparably connected with culture as well as with speakers’ mental and bodily experiences. According to Niemeier, a holistic approach helps learners refrain from

looking for one-to-one meaning correspondences between their first and the second language. What is more, learners become more open for conceptualizations that are common in the foreign language.

Many figurative images are influenced by speakers' cognition and culture. For example, metaphors are used to describe certain concepts in terms of other concepts. Typically, one salient aspect that the source domain and the target domain have in common is highlighted (cf. chapters 3.1.1. and 3.5). According to Niemeier, however,

the saliency of an object, event, or relation is construed by the language user and is not objectively or automatically given. The language user, on the other hand, does not live in a culture-free environment and is thus influenced by the surrounding culture, if only subconsciously (Niemeier 2004: 113)

In other words, reality can be viewed from various perspectives, and because of their structural and cultural conventions different languages draw speakers' attention to different salient aspects of reality. It is important to understand that learners construct their own knowledge from the input they receive. They construct hypotheses which they either verify or falsify and consequently improve. Hence, every learner constructs their own image of the second language and culture, and of the way the language guides cognition.

Finally, a holistic approach to second language learning and teaching implies that "it is impossible to separate learning language, learning through language, and learning about language" (Rothery 1989: 199). Each of these three types of learning can only take place in combination with the others. It has been claimed in chapter 2.2 that when people learn a language they learn through language. In other words, learners can only learn semantic structures and categories if they get actively involved in communication. They need to draw on their own experience. At the same time, learning language implies learning about the language, in the sense that learners realize that language may have different meanings in different contexts, for example. Rothery criticizes that "there is an impoverished environment for all aspects of language learning in the classroom" (Rothery 1989: 199). This is certainly true, and as discussed above raising language awareness would be part of the holistic approach to second language teaching.

### **4.3. Multilingual classes and intercultural competence**

According to the data collected by the Austrian office for national statistics, Statistik Austria, 19.3 per cent of the nearly 1.16 million students in Austrian primary and secondary schools were “Schülerinnen und Schüler mit nicht-deutscher Umgangssprache” (Statistik Austria 2012: 1) in the school year 2011/12. In other words, a fifth of the students in Austria did not use German as their language of everyday communication with friends and family. In Vienna, the biggest metropolitan area of the country, 44.3 per cent of the students came from various non-German language backgrounds. In the Hauptschulen of Vienna, a type of lower secondary schools, even two-thirds (66.0 per cent) of the students did not typically use German when they communicated with families and friends (cf. Statistik Austria 2012: 1). Similar numbers can be found in other countries around the world. For example, in the United Kingdom 17.5 per cent of the students in state-funded primary schools and 12.9 per cent of the students in state-funded secondary schools spoke a first language other than English in 2012 (cf. Department for Education 2012: 20). In the United States of America, in 2007 19.7 per cent of the population who were older than five years “[s]poke a language other than English at home” (Shin & Kominski 2010: 2).

These numbers illustrate that globalisation has considerable effects on the demographic, cultural and linguistic structures of societies. In a globalised world, people with different cultural and linguistic backgrounds meet and work together. The same is true for second language classrooms. As mentioned in the introduction to chapter four, however, linguistic diversity is often completely ignored in the educational context. Thus, García and Sylvan point out that approaches to language learning and teaching should be reconsidered. They criticize that language groups are often treated

as if they were static, homogeneous, and monolithic. Thus, models and pedagogies of second-language education [...] developed in the 20<sup>th</sup> century generally treat groups as if they were monolingual [...]. However, in the 21st century, a monolithic view of ethnolinguistic groups has been increasingly questioned [...]. Furthermore, with globalization and technological innovation, ethnolinguistic communities that had been previously isolated have started to come into contact with different people. Thus, the idea that an additional language could be taught to a monolithic group that starts out as monolingual is no longer viable (García and Sylvan 2011).

In other words, language teachers should not ignore the different language backgrounds of their students. Instead, they should view heterogeneity as a potential opportunity to

raise language awareness and to get students interested in learning new languages. As language, culture and cognition are intertwined, learning a new language always implies learning about the culture of the target language and learning new ways of conceptualizing ideas. Particularly in multilingual classes the different first languages of students may be valuable sources or starting points for teaching intercultural competence. One major pedagogical aim is that students realize that their own culture and language provides a particular perspective on the world, and that members of other cultures may sometimes view the world from different angles. In other words, students should critically question the conventions of their own culture as well as that of other cultures, and be aware of cultural and linguistic relativity. In chapter 3 it was demonstrated that cultural conventions are reflected in language, and that language influences speakers' cognitive processes. Thus, linguistic relativity as discussed in this paper seems to be of particular interest in multilingual classes.

#### **4.4. Suggestions for the second language classroom**

Accepting linguistic relativity as described in this paper implies certain changes in the language classroom. First of all, it is essential that language teachers are aware of the interconnection between language, culture and cognition, and that they choose a holistic approach to language teaching. These are the necessary preconditions for raising learners' language awareness.

What is more, it was claimed in the previous chapter that teachers should view the linguistic diversity of their learners as a resource in the language classroom. This does not presuppose that teachers speak all their learners' first languages fluently. However, Dixon and colleagues claim that

[h]aving at least some proficiency in the L1 of the students and knowing when and how to use it was also identified as an important skill for L2 teachers to develop (Dixon, Zhao, Shin, Wu, Su, Burgess-Brigham, Gezer & Snow 2012: 42).

Certainly, it cannot be demanded of language teachers that they speak all the first languages of their learners. However, they should at least be willing to learn some basics of these languages in order to broaden their own language awareness and in order to motivate students to identify differences between the target language and their first language to them.



Considering the demographic developments described in the previous chapter, it is particularly essential to acknowledge that learning a second language is a learner-centred process. In other words, learners do not necessarily learn what they are taught, but they construct their own hypotheses about the second language (cf. chapter 4.2). In this process they often compare the target language to their first language. Thus, every student should get the opportunity to compare the ways in which the target language and their first language guide speakers' attention in the process of thinking for speaking. Comparing the individual students' findings in multilingual classes may help learners understand linguistic relativity better than if the second language is only compared to the official language of instruction. It was illustrated in chapter 3 that even the two closely related languages English and German guide speakers attention in somewhat different ways. Thus, finding differences between English to other languages will probably be an easier task. As illustrated in chapters 3.1.1 and 3.5, metaphors are conceptual images and often involve cultural knowledge. Also, they appear in virtually every text. Thus, they particularly lend themselves to such a contrastive approach.

Kecskes and Papp highlight the importance of experiential learning, and point out that second language learners are often not fluent as they are not aware of how certain concepts are metaphorically structured or generally conceptualized in the language they learn:

Every language learner travelling in the target language country has experienced a certain kind of frustration that is the result of not conveying meaning the same way as native speakers do, that is, using wrong or unnative-like expressions, phrases and words. What these learners lack most is conceptual fluency, which means knowing how the target language reflects or encodes its concepts on the basis of metaphorical structuring [...] and other cognitive mechanisms [...]. This kind of knowledge is as important as grammatical and communicative knowledge. In fact, we think that it is even more important than the other two because conceptual knowledge serves as a basis for grammatical and communicative knowledge (Kecskes and Papp 2000: 10).

The examples discussed in the contrastive study of English and German (cf. chapter 3) support Kecskes and Papp's claim. For instance, learners need to be aware of the fact that in the process of thinking for speaking English speakers conceptualize aspectuality somewhat differently from German speakers, as their language compels them to distinguish between progressive and perfective processes (cf. 3.1.4). Also, learners should realize that metaphors and idioms can in most cases not simply be transferred

word-by-word into the target language. Speakers of the target language may conceptualize them differently and use different source and target domains (cf. 3.5).

To sum up, a combination of a cognitive and a communicative approach to language learning and teaching is proposed. Newby suggests that grammar should be described

on the one hand in terms of mental processes that underlie the use of language (cognitive), and on the other, as an act of communication – a dynamic process in which a speaker's perceptions are encoded by linguistic means into messages (communicative) (Newby 2012: 104).

It has been argued that language cannot be viewed separately from culture and cognition. In other words, language may even be seen as part of cognition. Also, it has been demonstrated that in the process of thinking for speaking people's attention is guided by the language they speak.

## 5. Conclusion

In the first part of the thesis the nature and intensity of the interrelation between language, culture and cognition were analysed. It was pointed out that linguistic diversity should be viewed as a manifestation of human creativity and cognition. From a cognitive linguistic point of view, language is a part of the general cognitive structures of the mind, grammar carries meaning, and language is learned through experience. It was argued that linguistic categorization is arbitrary to some extent, and different languages and cultures sometimes categorize objects or concepts differently. This claim lead over to a discussion of the development of the linguistic relativity hypothesis. Eventually, several modern approaches to linguistic relativity and their strengths and weaknesses were outlined. Two of these approaches, i.e. thinking for speaking and language as spotlight, were selected as the basis for the contrastive study in chapter 3. Considering the connection between language and culture, it was found that language reflects and shapes culture, and vice versa. Concerning the relationship between language and cognition it was argued that while thoughts may exist without language, language guides people's attention, at least in the process of speaking.

The second aim was to examine whether speakers of the two culturally and historically closely related languages English and German organise their thoughts differently. It was demonstrated that the two languages guide their speakers' attention in different ways, and meaning cannot be transferred word-for-word from one language into the other one. Also, speakers of the two languages sometimes use different metaphorical images. Finally, even though generalisations must be treated with caution, it was suggested that English surface structures tend to be vaguer and more ambiguous than German surface forms. In other words, Germans speakers may be compelled to express certain pieces of information which English speakers may express in vaguer terms. However, the primary objective was not to reveal the systematic differences between the two languages, but to demonstrate that there are differences and that linguistic relativity exists.

Finally, the implications of the findings from chapters 2 and 3 for second language learning and teaching were discussed. It was concluded that raising language awareness must be accepted as an important pedagogical aim in second language teaching and in education in general, particularly in multilingual classes. Also, a holistic approach to second language learning and teaching was suggested.

In consideration of the fact that many languages around the world die in consequence of globalisation and the spread of world languages, linguistic diversity may soon be reduced to a minimum. Another phenomenon is that languages such as German, for example, increasingly take over structures and lexical items from the English language. Future studies may investigate in how far speakers of world languages, such as English, accept conceptualizations that are transferred from other languages. Does the notion of English as a lingua franca imply that conceptualizations and metaphoric images from other languages may be incorporated?

Reconsidering the controversial issues in current research on linguistic relativity (cf. chapter 2.6), future studies should aim at finding more reliable methods for examining the relation between language, culture and cognition beyond the process of thinking for speaking. The discipline of neurolinguistics may provide new insights in this field.

As already discussed in chapter 2.5.3.1, language

may have a more pervasive effect for perceptually and conceptually continuous domains (e.g., color, time, and space) than for discrete domains (e.g., objects or sex). It is only by investigating a broad range of languages and cross-linguistic differences that the role of these more general factors can be better understood (Vigliocco, Vinson, Paganelli & Dworzynski 2005: 513).

The present thesis compares cross-linguistic differences between English and German. It is thus only a small contribution to the research on cognitive linguistics and linguistic relativity. It is recommended that future studies investigate cross-linguistic differences between a large variety of languages. To conclude, Goethe was right in claiming that those who know nothing of foreign languages know nothing of their own:

Wer fremde Sprachen nicht kennt, weiß nichts von seiner eigenen  
(Goethe 1821 [1907]: 18).

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## Deutsche Zusammenfassung

Schlagwörter: *sprachliche Relativität; linguistischer Determinismus; linguistische Kategorisierung; kognitive Linguistik; Sprache, Kultur und Kognition; thinking for speaking; Sprache als Spotlight; kontrastive Sprachanalyse; Language Awareness; multilinguale Schulklassen;*

In dieser Arbeit wird die Theorie der sprachlichen Relativität von einer kognitiv-linguistischen Perspektive aus betrachtet. Das Ziel der Arbeit ist es, die Beschaffenheit und den Umfang der Wechselbeziehungen zwischen Sprache, Kultur, und Denken zu analysieren, und die möglichen Auswirkungen der Ergebnisse auf das Fremdsprachenlernen und auf den Fremdsprachenunterricht zu diskutieren. In einer kontrastiven Sprachanalyse werden die deutsche und die englische Sprache miteinander verglichen. Es wird gezeigt, dass sogar das Denken von Sprechern zweier historisch und kulturell sehr stark verwandter Sprachen manchmal in unterschiedlichen Bahnen gelenkt wird. Die Sprecher unterschiedlicher Sprachen richten ihre Aufmerksamkeit auf unterschiedliche Aspekte der Realität und tendieren dazu, gewisse Objekte oder Ereignisse von unterschiedlichen Perspektiven zu betrachten. Die Arbeit gliedert sich in drei große Abschnitte. Im ersten Abschnitt wird der theoretische Hintergrund erläutert: die Theorie des linguistischen Determinismus wird widerlegt; das neu entstandene Interesse in der kognitiven Linguistik an linguistischer Kategorisierung und sprachlicher Relativität wird erklärt; und fünf aktuelle Herangehensweisen an die Theorie der sprachlichen Relativität werden präsentiert. Der Vergleich von Englisch und Deutsch im zweiten Teil der Arbeit basiert auf zwei dieser Ansätze, nämlich *thinking for speaking* und *Sprache als Spotlight*. Verschiedene Bereiche werden analysiert: Zeit und Raum; Metaphern; lexikalische und semantische Kategorisierung; Informationsstruktur; pragmatische Aspekte; und Idiome. Im dritten Abschnitt werden verschiedene Veränderungsvorschläge für den Fremdsprachenunterricht vorgeschlagen: *Language Awareness* sollte geschaffen werden; eine holistische Herangehensweise ans Unterrichten sollte gewählt werden; und linguistische Diversität in multilingualen Klassen sollte als eine wertvolle Ressource angesehen werden. Abschließend muss erwähnt werden, dass es nicht das Ziel dieser Arbeit ist, die unwissenschaftliche nationalistische Tradition fortzuführen, in der die Theorie der sprachlichen Relativität missbraucht wurde um Klischees zu verstärken und angeblich die Überlegenheit gewisser Kulturen und Sprachen zu erklären. Anstatt eines deterministischen Ansatzes

wird hier eine differenziertere und objektivere Sichtweise vertreten, die sich auf aktuelle wissenschaftliche Beweise stützt.

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### Education

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### Scholarships

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<sup>1</sup> Alternative service instead of compulsory Austrian army service