

Second Language Learning and Cultural Acquisition

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New Perspectives

Edited by

Junichi Toyota, Ian Richards
and Borko Kovačević

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ABBREVIATIONS

ACC = accusative
DAT = dative
ERG = ergative
GEN = genitive
INF = infinitive
INST = instrument
LOC = locative
M = masculine
N = neuter
NEG = negative
NOM = nominative
NOMZR = nominaliser
NP = nominal phrase
PRS = present tense
PRT = participle
PST = past tense
VOC = vocative

CHAPTER ONE

INTRODUCTION: LANGUAGE AND CULTURE

JUNICHI TOYOTA, IAN RICHARDS
AND BORKO KOVAČEVIĆ

Cultural competence in learning

Various issues that can be studied under cultural competence are found in numerous disciplines, but it seems that each discipline, be it semiotics, ethnic studies or literature, works on its own, and so a comprehensive approach encompassing different aspects of culture is hard to find in previous research. With an array of possibilities, this volume focuses on the interaction of cultural influences on language teaching and learning. More specifically, the aim is to investigate how the implementation of better cultural understanding in language teaching and learning can be achieved, hoping to shed light on the fact that cultural differences can be a hindrance for learners seeking to achieve native-like competence, i.e. in spite of good linguistic competence, some learners may fail to communicate effectively. Due to its interdisciplinary nature, this volume aims to serve as an ideal platform to address what potential benefits a fresh approach can bring to the field of linguistics, as well as applied linguistics. Thus, scholars and teachers alike are given unique opportunities to see the importance of cultural influences in language acquisition.

Studies on culture and learning

Culture can be a very elusive term; and it can be loosely defined as structured systems containing various facets of social activities, and in order for a culture to function properly, one cannot add or take away any elements from it. Thus, a set of activities within a certain society form a local social norm, i.e. culture, but what is not local may appear odd. We

tend to define ourselves in relation to others, us being a norm and others, foreign and exotic. Lindenbaum (2004), for instance, claims that exoticism constructed by the west through colonialisng the New World commonly assumed the savage-civilised opposition using the practice of cannibalism. Individuals who practice cannibalism in the western world are immediately arrested and branded mentally insane, and it is a criminal act. However, this is not always the case in different parts of the world. Papua New Guinea is known for this practice. The Korowai people are perhaps best known for this, but other tribes also do what appears to be cannibalism. The Fore people cooked and consumed the flesh of the deceased in a village, and this act was practiced in order to free his/her spirit. Evidence is seen in the spread of the kuru disease among the Fore. In the act of flesh consumption, women and children often consume the brain, where infectious prions, abnormally folded protein, are most concentrated. It is believed that this is how transmission of disease occurred. The protective gene is most visible among women over 50 years of age, who have gone through multiple mortuary ceremonies, in contrast to the younger generation who have not eaten human flesh (Lindenbaum 2004: 491-492). As far as the Fore people are concerned, this is a type of exorcism or a ritual practice akin to funeral rites in the west. Some may consider cannibalism in Papua New Guinea an act of barbarism, but this is a biased view based on western culture, showing a total lack of knowledge of other ways of life.

There are many disciplines containing the term *culture* or *cultural*, i.e. cultural anthropology, cultural psychology, and cultural studies focusing on a specific region, and other disciplines without the term in effect deal with cultural issues, e.g. art history, communication studies, ethnography, Marxism, semiotics, postmodernism, post-structuralism, and social theory, among others. These also include a century-old, if not longer, debate concerning the relationship between them. Research into the linguistic relativity hypothesis, a term coined by Edward Sapir and Benjamin L. Wharf, may come to one's mind on this topic, and this is perhaps what has raised awareness of cultural impact on language studies. Later, specific disciplines such as ethnolinguistics or cultural linguistics emerged (e.g. Wirzbicka 1992, 1997), dealing with the relationship between language and culture, and this topic has reappeared as ethnosyntax (cf. Enfield 2002), where cultural variations are related to certain constructions.

In this respect, language studies, especially areas related to language teaching and learning, are placed in a precarious position. Culture is closely knitted into language, and learning a new language also means one is acquiring a set of new cultural practices. Ethnolinguistics or ethnosyntax

is normally not incorporated into the field of applied linguistics, indicating cultural factors in learning a language have been overlooked. The issue is not restricted to language studies involving teaching and learning but can be extended to other fields related to education. Culture is often a factor affecting school learning, and research is required to see how people from different ethnic as well as cultural backgrounds fare in school (Jorgensen et al. 2010). For instance, Australia has attempted to understand its native Aboriginal people better, and researchers work on various issues concerning cultural differences in a number of disciplines, such as mathematics (Meaney 2002, Warren and Miller 2013). Thus, there are various areas concerning culture in education still to be investigated.

Topics covered in this volume

This volume consists of four parts, i.e. culture and cognition, culture in specific regions, culture in teaching models, and culture in wider perspectives. The first part, culture and cognition, contains a single paper by Toyota. This paper questions whether human cognitive ability is the same regardless of race or living environment. Linguistic evidence, as argued in this paper, suggests that there are differences. This paper also examines whether language learning can be influenced by racial or cognitive differences, raising awareness of the relationship between our general/culture-induced cognition and the learnability of languages. The paper covers a range of topics applicable to other papers in the volume.

The second part focuses on culture in specific regions, and two papers are mainly concerned with the Balkan region, where different cultures and languages co-exist side by side. Đukanović presents an interesting case of language teaching in Slovenia as a second language in the South Slavic region. Slovenia has been in close contact with Germanic, Romance and Hungarian cultural traditions while maintaining its own South Slavic tradition. Her paper also shows peculiarities of Slovenian language acquisition at different levels of teaching. Božović, Kovačević and Toyota attempt to analyse the notion of linguistic area (*Sprachbund*) and see whether it is possible to include sociocultural and sociopragmatic factors underlying particular multilingual contact situations. A particular area in question is the Balkan region, and how the spread of shared structural features of the Balkan languages emerged through borrowing, and this is analysed with respect to their sociopragmatic context and functions. It is argued that linguistic area is better understood through the Boasian notion of ‘culture area’ (*Kulturraum*).

The third part, culture in teaching models, contains four papers dealing with teaching within a specific framework. Bakić-Mirić presents basic principles of an intercultural approach to English language teaching, pointing out the importance of intercultural competence in language teaching and learning. The paper nicely explains how students can build intercultural competence while developing their language skills. Cervini and Zucchi introduce the main features of intercomprehension and interproduction methodologies, and present their Intercomprehension course involving students from Italy, Brazil and Argentina. Three steps are planned in their programme, e.g. enhancing the plurilingual biography of the learners, reinforcing written and oral comprehension skills in intercomprehension, and training them with specialized texts and terminology concerning the area of students' areas of speciality. Miličević Petrović argues for the necessity of (inter)cultural competence and culture-related knowledge even for both language professionals and professionals engaged in the field of science and technology. Her claim is based on *UPgrading the SKills of Linguistics and Language Students*, an ongoing project. It is made of seven clusters and has an (inter)cultural cluster at its core along with other language-related interdisciplinary knowledge and skills. Due to the nature of the programme, it is proposed that this approach should be included in university education. Ishino attempts to define culture in teaching languages through conversation analysis. By analysing EFL classroom in a Japanese secondary school, she found out that EFL teachers normally manage to integrate the cultural norms of the Japanese school system into their teaching of greetings in English conversation, creating a hybrid cultural norm. In some cases, the teacher spent extensive time teaching such social norms and treating this as his primary task instead of teaching English conversation itself. The analysis she conducted shows the benefit of conversation analytic in language teacher education, pointing out certain vital issues in English language education in Japan.

The fourth part, culture in wider perspectives, discusses cultural diversities found in language-related topics. There are three papers. Košir, Rolih and Mikolič present a case study of using literary works by a Slovenian author, Kosovel, and an Irish author, Beckett, for teaching language and culture. They use the so-called TILKA model, aiming to develop intercultural awareness and linguistic competence among students. They focus on two cognitive concepts, time and space and their use in metaphor. The realisation of these concepts is diverse according to each culture, and can be treated as good and easily accessible representatives of speakers' worldview and cultural information. Richards investigates

cultural authenticity and influence in literary work by a New Zealand author in Janet Frame's 'Miss Gibson and the Lumber Room.' In this work, the cultural influence of Britain can be detected, and it is allegorically shown through students' compositions about a lumber room. Students have varying degrees of familiarity with the cultural concept of this type of room, which was common in Britain but was not so in New Zealand. This results in inefficient composition by the students. The outcome of the compositions can be comparable to language teaching and understanding culture. Even among English speakers cultural differences may be found, and this point can be a valuable lesson for language teaching and learning. McAvoy investigates a secondary school speech community in a working-class area of the United Kingdom. Claims over ideological views on diversity, equality and social justice may well be accepted, but can be hazardous, i.e. too much trust in this line of ideology came to occupy a quite staggering dominance and reach throughout social and cultural life, from education to government policy. He argues that within the same community, the same idea can potentially produce much wider cultural divergence, and thus harm its own community.

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PART ONE:
CULTURE AND COGNITION

CHAPTER TWO

CULTURAL AND COGNITIVE DIFFERENCES IN LEARNABILITY: A VIEW FROM ANTHROPOLOGICAL LINGUISTICS

JUNICHI TOYOTA

Abstract. The purpose of this paper is two-fold: it reviews several cases that cast a question over whether human beings are all equipped with the same cognitive mechanism, especially in the domain of language use. There are, or at least were, claims that suggest that we are not always equipped with the same cognitive ability, and our cognitive behaviour may vary from race to race, influenced by culture in some cases. Linguistically, evidence does suggest the presence of differences, and cultural variations are examined as a possible influence on the diversity of our cognitive ability and language use. Such differences in cognition and culture can be also considered as influences on the performance of students at school in certain subjects such as maths. Due to political correctness, such differences are often intentionally avoided from fear of racial discrimination. This paper also examines whether language learning can be influenced by racial or cognitive differences, raising awareness of the relationship between our general/culture-induced cognition and the learnability of languages.

Introduction

Learners of a new language face various kinds of problems, and countless materials have been produced to deal with them. However, a question can be raised as to whether uniform solutions can be applied to every learner with a different background, be it linguistic, cultural or other factors. Swan

and Smith (1987), for instance, list typical errors in learning English according to the different first language of learners. This can be a sign that there is room for improvement to build different materials specifically made for a group of speakers of certain languages. This leads to another issue of grouping learners, and this paper intends to show that some important factors have been overlooked, and issues such as cognitive capability based on racial and cultural differences can be incorporated into language teaching or learning. Due to political trends, racial differences are often shied away from in academia, but as this paper proceeds, a certain type of cognition can be associated with a particular race or cultural practice. These types of differences have to be considered for both the first language of learners and their target language.

The organisation of the paper is as follows: a brief history of anthropological studies dealing with racial differences is reviewed, focusing on two opposing trends. Following this, cases where cognitive differences concerning language use can be observed are presented, including spatial orientation and metaphor, perception and metaphor, and linguistic orientation. Finally, whether such differences can be incorporated into effective language learning is discussed.

Differences in race and learnability

The pre-Saussurian approach to linguistics, dating back to the end of the 18th century, largely saw language as a cultural product in human life. Classical philologists of the time felt an affinity towards the splendours and grandeurs of ancient Greece and Rome. They were hoping to understand better the culture of antiquity through the investigation of literary texts. Literature was given a special recognition, and this practice can no longer be found in some cultures to the same extent. However, the French, for instance, have gone to somewhat of an extreme in this trend and preserved the old tradition, and they distinguish *dialecte* from *patois*. Both of them are related to dialect, but the former specifically refers to regional variations of the language with a literary tradition such as the Southern French dialect *langue d'oc*, whereas the latter, to variations without a literary tradition. Newly emerged comparative linguists had a different mindset, and regarded the language as a living organism. August Pott (1833: 27, cited in Newmeyer 1986: 23), for instance, made an analogy of language to an organic life cycle, e.g.:

A language is in a constant state of change throughout its life: like every organic object, it has periods of gestation and mutation, times of

accelerated and of slackened growth, its prime, decay, and gradual extinction.

These scholars followed the tradition of Romanticism, and had a holistic approach. They thought that studies on human beings, including languages, should look at their subjects with their living surroundings, including the past that reveals how human beings behaved, and that inevitably shaped grammar.

This view became obsolete in mainstream linguistic analysis after language came to be regarded as an autonomous entity through structuralism. This in turn led to a surge of synchronic studies, whose predominance we see now in various disciplines of linguistics. A turning point was the treatment of autonomy in language. By looking at languages as living organisms, their historical change is supposed to follow principles in evolutionary biology, such as the survival of the fittest. These principles often presuppose that languages had to interact in society and be influenced by culture. However, scholars could not find such evidence, and opted for an idea that the organisation of grammar exists in its own right, independent of the environment in which it is used. It was also believed by the scholars of that time that tendencies in language change, whether it was sound or structural change, were also inherent in language itself.

Based on the autonomy of languages, culture and historical matters became irrelevant in linguistic studies, and the focus was placed on a synchronic analysis of grammar and sound. This idea is often joined with *Cours de Linguistique Générale* by Ferdinand de Saussure (1916), a posthumous publication based on lectures. In this, an important distinction is made between *langue* and *parole*. The former refers to the abstract system of structural relationships inherent in language, and the latter, to the individual act of speaking that is unrepeatable. The analysis of *langue* became the base of so-called structural linguistics or structuralism, and three components of research, i.e. sound patterns (phonology), word formation (morphology) and the relationship between words and larger constructions (syntax) form a core of linguistic analysis. Therefore, this line of research normally consists of making inventories of phonemes, morphemes, and syntactic categories and making notes of circumstances in which they are used. After the Second World War, stemming from a structural approach, an 'egalitarian view on language' (Newmeyer 1986: 39) emerged in particular among the structuralists in the US, namely, that all the languages in the world are essentially derived from the same base form, and all the structures can be analysed in terms of an autonomous structural system by using the same method. This allows a large-scale comparison of different languages in the world.

The influence of structuralism can be seen in unexpected areas such as politics, and the egalitarian approach was frowned upon or strongly condemned by some countries. Nazi Germany and Fascist Italy were those countries, along with the Soviet Union. Principles in structuralism collided with their ideology. In the Soviet Union, an abstract structural relationship opposed the strict class system of the time. In addition, the Soviet Union as well as the Russian Empire were often weary of the western trends, and often were opposed to ideas ripe in Western Europe. In Nazi Germany and Fascist Italy, linguists described how their languages were superior to others and how that superiority was related to the glory of the speakers and the nation. The Nazi regime went even further, to state that the Aryan race was far better than others by refuting the egalitarian structuralist approach. Interestingly, anthropologists working in these two states claimed that there were differences according to each race, and some languages could be judged better or worse than others. As Newmeyer (1986: 37-38) claims, '[s]tructuralism, with its value-free analysis of individual languages and equal attention to all of them, regardless of the race or cultural level of their speakers, was anathema to official ideology in those countries.' Nazi Germany went one step further and beatified the German language and the Aryan race, and claimed that they were better than any other race in the world.

Scholars supporting structuralism, i.e. the ones in the US and to a lesser degree, the UK, opposed this claim and argued that *Homo sapiens sapiens* were the same regardless of their race or the language they speak. A driving force behind this trend was egalitarianism in approach, as Newmeyer (1986: 39) terms it. Franz Boas, in his *Handbook of American Indian Languages* (1911), managed to unpuzzle the grammatical complexity of the indigenous languages of North America. Their structure is radically different from that of Indo-European languages; it was hard to speculate on something being similar among languages from totally unrelated language families. Since this sense of similarity was not known to scholars at the time, and with the addition of political prejudice, languages spoken by indigenous North Americans were sometimes considered inferior to Indo-European languages. Boas painstakingly dissected the sound and structural system of these languages and explained that these languages are as complex as their Indo-European counterparts, and thus, languages across the world are the same in principle. This claim led to a new trend in research, in which same internal rules are applicable to all the languages. In other words, it allowed general rules proposed by various theoretical approaches to be applied to a wide range of languages. This idea gained momentum during the 1980s and saw a surge of a typological comparison,

later known as linguistic universal, in order to find the rules necessary to account for the structures of every language in the world, and current linguistic studies are, to varying degrees, influenced by the egalitarian approach. However, this promotion did not go uncriticised: this long-maintained trend in research often does not enable us to notice subtle differences that cannot be observed without taking sociohistorical aspects of language into consideration. Indeed, structuralism did receive criticism in its dealing with, for instance, dialectal variations.

Looking back on the history of linguistic studies, the two opposing sides engaged in the Second World War espoused, interestingly, two opposing trends in linguistics and anthropology. And the idea that was popular on the winning side of the Allied forces prevailed, and it is possible to consider that this choice was not academically motivated, but instead politically determined. However, recent anthropological and typological studies claim that there is no linguistic universal in a strict sense, but instead, we find universal tendencies with exceptions. This naturally contradicts the structuralism-based universal. Our languages seem to work on the same principles across various languages on the surface, but some languages may not comply with them. Further studies may reveal finer distinctions in such variations, but evidence presented so far suggests that our languages and cognition are not always the same. This makes us wonder whether we all possess the same cognitive capability and intuitions or not.

Evidence for differences

Studies in the past several decades show that racial and cultural differences affecting the way we use languages may run deeper than previously assumed. Some may be cognitive, and others cultural, but cases introduced here indicate that there are indeed differences.

Spatial orientation and metaphor

We live in space and have to orient ourselves somehow in our living environment. Thus, spatial recognition has been crucial in our survival. Naturally, spatial orientation has had significant impact on the evolution of human cognition. The right-left symmetry is one such instance, and various artifacts even from prehistoric times carry shapes or design patterns based on the right-left symmetry (cf. Jablan 1995). Such a symmetrical pattern is so prevalent that we do not give a special prominence to only one side. In cognitive science, it was once believed that we human beings have a

uniform spatial recognition, and that a person always performs relative spatial recognition. In an experiment on absolute-relative encoding such as the one conducted by Pederson et al. (1998), a participant is first shown a set of objects, such as toy animals placed in a certain order or a direction, and then asked to place the toys in a memorised order. The stimulus table in Figure 1 shows that three cows with different colours on the stimulus table are placed in one direction. A participant is asked to observe their order, and then rotate 180° and reproduce on the recall table the order observed on the stimulus table.

Previously, it was believed that we human beings always perform relative (i.e. mirror image) spatial recognition, i.e. the space is encoded with respect to the participant's body and his/her spatial orientation. Thus, in the case of Figure 1, regardless of the direction the participant faces, the white cow always comes to the left of the participant and the grey one to the right. This pattern is commonly found among people whose language has a large number of speakers, and these languages are often well-studied in linguistic studies. However, it has been revealed through typological studies in the last couple of decades that speakers of less-studied languages have a different pattern of reproducing the order. This type, known as absolute perception, has some anchoring points outside of the participant's body to base his/her orientation, including landmarks or cardinal points. As seen in Figure 1, reproduction in the recall table is not affected by the body orientation of the participant, but by some anchoring points. Regardless of the degrees of rotating by the participant, the white cow is placed at the bottom end of the table. Therefore, our previous belief that humans were all supposed to perform relative spatial recognition was proved wrong.

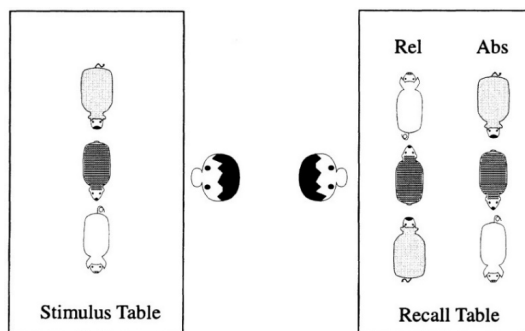


Figure 1. Animals-in-a-row experiment for relative and absolute perception (Pederson et al. 1998: 576)

This striking difference in spatial orientation is also seen in linguistic structures. Inoue (1998) states that some languages in the world do not possess words that can be translated into ‘left’ and ‘right’ in English, and speakers of these languages, as listed in Table 1, perform absolute orientation. Without these words, speakers of these languages use various tactics to deal with talking about directions, including the use of cardinal direction (north, south, east and west), body parts (head, leg, chest, back, etc.) or landscape (uphill, downhill, upper river, down river, etc.). The use of cardinal direction and landscape involves a reference point outside of the body to navigate, which requires a detailed knowledge of one’s local living environment. Since their reference point in navigation is outside of their body, it is understandable that they have absolute perception.

Table 1. Languages without words for left and right

Means of expressing direction	Language
Cardinal	Guugu Yimidirr (Pama Nyungan); Tamil (Dravidian)
Body parts	Kilivila (Austronesian); Mopan (Mayan); Totonak (Totonakan)
Landscape	Tzeltal (Mayan, uphill; downhill)
Mixed (cardinal and landscape)	!Xun (Khoisan, upper river; down river)

The lack of vocabulary for ‘left’ and ‘right’ can be used as an indicator of yet another characteristic in human language, i.e. conceptual metaphor treating time as space. It is commonly assumed that space serves as a source domain in the conceptual metaphor of time, and this is found in various languages from different regions and language families (cf. Lakoff and Johnson 1980). For instance, prepositions in English such as *from*, *to*, *before*, *after* and *around* can all refer to space, e.g. (1), but they can also refer to time, as exemplified in (2).

- (1)
- a. *I travelled from London to Cambridge.*
 - b. *Children performed a play before a small audience.*
 - c. *The house you mentioned is right after the newsagent from here.*
 - d. *The insects gather around the lamp at night.*

- (2)
- a. *I travelled from Sunday to Monday.*
 - b. *Children performed a play before Christmas eve.*
 - c. *The house you mentioned was built right after the Second World War.*
 - d. *The insects became active around midnight.*

In conceptual metaphor, space is something that we deal with every day and it is physically observable by humans. Thus, it is considered cognitively concrete. Time, on the other hand, is less concrete due to its lack of tangibility. Promoters of the universalness in conceptual metaphor argue that this type of relationship can be found in various languages. However, speakers of the languages listed in Table 1 are said to lack the ability to understand the space-to-time metaphor, and special expressions merely refer to space.

An explanation put forward by Inoue (1988) is that the lack of words for 'left' and 'right' does not allow speakers to assume the flow of time in a certain direction. The direction can vary according to each culture or language, but the common direction is either from left (past) to right (future) (cf. Figure 2a) or from top (past) to bottom (future) (cf. Figure 2b) in Chinese (cf. Radden 2003). In the horizontal flow, the concept of 'left' and 'right' is required in order to comprehend the direction. Whether these words have to appear first to influence the culture and cognition or vice versa, i.e. linguistic relativity, should be discussed elsewhere, but it seems a reasonable argument that these words are required to deal with the conceptual flow of time. To support this idea further, another similar relationship, i.e. time and body parts, should be considered. The past-future distinction and the front-back distinction of the body have been studied in various languages. The common pattern is the association of past with the back part of the body, and future with the front part. This can be seen in the gramamticalisation path indicating the direction of time flow (Heine and Kuteva 2002), as exemplified in (3). A front-back reversal can be found in some languages. For instance, Aymara grammaticalised *nayra* 'eye/front/sight' for the past, and *qhipa* 'back/behind' for the future (Nuñez & Sweetser 2006: 402), and the same pattern can be found in Brazilian sign language, Malagasy (Austronesian, Dahl 1995), Tuvan (Turkic, Klein 1987), or Maori (Austronesian, Thornton 1987). Speakers of these languages associate the front part of the body with the past, and the back part with the future, contrary to the more dominant pattern of front-future/back-past, but they still have the metaphor of time based on space. Amondawa (language isolate, Amazon) is reported to lack the space-time metaphor (Sinha et al. 2011). There is no mention of words for

‘left’ and ‘right’, but judging from the argument so far, it should lack these words.

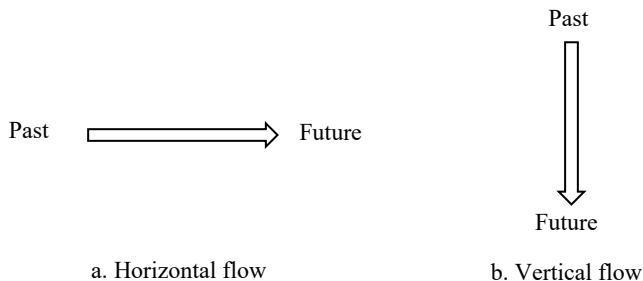


Figure 2. Schematic representation of time flow

- (3) a. **Back**
 Thai *lay* ‘back’ < *lay-càag* ‘after’ (lit. back from’); Icelandic *bak* ‘back’ < *baki* ‘behind, after’; English *back* (N) < ‘earlier’; Nanay (Tungusic) *xamasi* ‘back’ < ‘ago’; Estonian *tagasi* ‘back’ < ‘ago’.
- b. **Front**
 Shona (Bantu) *mberi* ‘front’ < ‘ahead’; Moré (Niger-Congo) *béoghé* ‘be in front’ < *béogho* ‘tomorrow, the following day’.

There are variations in how we perceive space and time, and differences concerning the space-time metaphor are certainly detectable. What is certain is that the presence and absence of the words for ‘right’ and ‘left’ is an indicator of a different cognitive system.

Vision, hearing and other perceptions

Along the line of space-time conceptual metaphors, let us turn to another type of metaphor involving vision and knowledge. In many languages and cultures, vision often leads to gaining knowledge; thus this type of metaphor is known as seeing is knowing. Therefore, English and other commonly studied Indo-European languages use the verb ‘see’ to refer to understanding, e.g. (4) from English and (5) from French. Furthermore, seeing is knowing has further developed and became lexicalised in some languages. A Proto-Indo-European verb **weyd* ‘see’ is the etymological

source for the English *wise* or *wit*. Similarly, the Proto-Germanic *wāit* ‘I know’ was derived from the same Proto-Indo-European verb in the perfective aspect ‘I have completed seeing’, and this form did not follow a common developmental path from the perfective aspect to the past tense, but instead came to express ‘I know’ in the present tense. German may not have the seeing is knowing metaphor, but it has gone through various metaphorical changes in the past, and knowledge-related lexicons are somehow related to vision in German, e.g. the German *wissen* ‘know’.

English

- (4) *I see your point.*

French

- (5) *Je vois ce que tu veux dire*
 I see.PRS what you want.PRS say.INF
 ‘I see what you are trying to say.’

As Toyota and Richards (2017: 2-5) point out, vision-related issues often attract interest from interdisciplinary researchers. Vision seems to play a central role in the five senses that human beings possess, and metaphors can be considered one such instance. Viberg (1984) presents a typological study on perception, where vision plays a central role in sense extension and can refer to hearing, touch and taste. This relationship is schematically represented in Figure 3. However, scholars working on lesser-known languages and cultures have been familiar with cases that do not comply with such examples as (4) and (5). A seminal work in this field, Evans and Wilkinson (2000), presents various cases in Australian and Papuan languages. In these languages, a verb of hearing plays a major role and it is used as a base for a metaphorical extension referring to cognition, e.g. ‘I hear your point’ meaning ‘I understand your point’. It is often the case that verbs in these languages are highly polysemous, but a verb of hearing is still consistently used. Let us look at an example. The Australian language Pitjantjatjara has a verb *kulini* ‘hear’, as in (6a). Among various senses, this verb can be used as a verb of cognition, as exemplified in (6b). This is not expected in the extension type in Figure 3. But this is not a single rare case, since a number of languages spoken in certain parts of the world, e.g. Australia, Papua New Guinea, East Africa and South America, behave differently, and verbs of hearing seem to be the prime source for semantic extensions. The pattern of semantic extension in these languages is schematically represented in Figure 4. Note that the dotted line here shows a dubious case and this extension is

dependent on how one interprets data, and thus it is left open to interpretation.

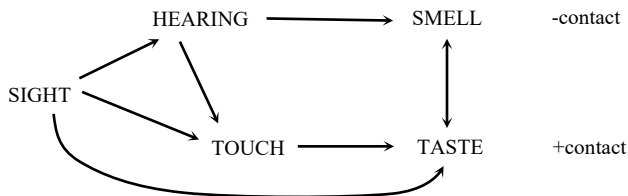


Figure 3. Schematic representation of semantic extensions (Viberg 1984: 147)

- (6) Pitjantjatjara (Australian, Evans and Wilkinson 2000: 563, 564)
- a. *Ngayulu anangu-ngku wangkanytjala kulinu*
 I people-ERG talk.NOMZR.LOC hear.PST
 ‘I hear people talking.’
- b. *Mutuka/compyter ngayulu putu kulini*
 car computer I in.van understand.PRS
 ‘I don’t understand cars/computers.’

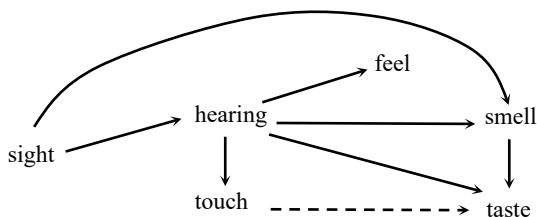


Figure 4. Semantic extensions across perceptual modalities in Australian languages (Evans and Wilkinson 2000: 560)

Sense extensions shown in Figure 4 seem to suggest that all five senses are somehow wired to each other. From the perspective of patterns found in, say, the Indo-European languages, this wiring is a puzzle. However, this linguistic synaesthesia has an explanation, and it is based on an unusual suspect, i.e. psychosis. Mental illnesses such as schizophrenia are found in the four corners of the world at about the same frequency. According to Crow (1997: 289), these conditions are ‘characteristics of human populations.’ Toyota and Richards (2017: 3) state that languages that operate in the system found in Figure 4 have a special cultural practice, where vision is given a special meaning. For instance, adolescent boys

among the Crow Indians of Montana are expected to go on a vision quest to seek spirits. They have a social belief that a guardian spirit will come to them and will protect them as long as they follow certain commands, and the Crow boys are hoping to see and hear their guardians. It may not be easy to have visions or hear voices, and they often go through some ordeals and, in some extreme cases, torture themselves in order to achieve their goal. The extent of their behaviour is not easily understood by westerners, and their experience during the vision quest is normally regarded as visual or auditory hallucinations by western psychiatry. Thus, '[w]hat is regarded as a symptom of mental illness in one society may be merely one aspect of normal, even highly valued, psychological experience in another' (Rosman et al. 2017: 75). Mental illness has been studied cross-culturally (cf. Kleinman and Good 1985), and universal features for some conditions, such as schizophrenia or neuroses, have been recognised (cf. Draguns 1980; Gadit 2003), but as Rosman et al. (2017: 76) states, 'these illnesses are also culturally shaped. Variations in their manifestations are related to social, economic, technological, religious, and other features of the societies in which they are found shape cultural concepts of self and others.' In such cultures, 'seeing' has a special cultural value, and the verb of vision is reserved for those who can see spirits, including gifted people such as shamans, and thus common people have resorted to the second most prominent form of perception in Figure 3 and Figure 4, i.e. hearing, and this is how the verb of hearing became prominent in languages in specific parts of the world.

Further evidence can be found in East Africa. Thanassoula (2013) reports a case of Lussesse, a Bantu language spoken on the Ssesse Island in Lake Victoria. Lussesse also uses a hearing-based semantic extension similar to (6), but an olfactory verb can be a base for semantic extension. This language also has a highly polysemous verb of hearing *-hùlirà*. In the local religious belief, people follow the idea that ancestors communicate through smell, and only religiously-gifted people such as a shaman can interpret olfactory signs. Thus, smell as well as hearing gains a special status among our five senses, unlike anywhere else in the world. Figure 5 shows a semantic network of perception verbs in Lussesse. The verb *-niúuka* 'smell good' is used in a religious register and it can be extended to cognition. In addition, this usage is only found among religious people, and common people use the verb of hearing for various extensions including cognition, suggesting that vision is also reserved for religious people, as elsewhere where religious influence is very strong in organising perception linguistically. The use of an olfactory verb is typologically rare, but the same principle based on religion is also found here.



Figure 5. Lussesse (Bantu) perception (Thanassoula 2013: 255)

Religion has much impact on our thoughts and behaviour (cf. Sussex 1993: 1006) and, through time, its impact forces some grammatical features to be grammaticalised/de-grammaticalised, such as the future tense (e.g. Burridge 2004; Toyota 2012a). We may be physically equipped with more or less the same perceptual apparatus, but the value given to each perceptual sense significantly differs from culture to culture, and a difference may be beyond comprehension without detailed explanation about local cultures. Accordingly, such differences run very deep in speakers' behaviour, and are often incorporated in linguistic structures, as seen in this section. Thus, the diversity presented here is not a simple surface linguistic variation and is the result of cultural settings forcing on us a different worldview.

Apart from cultural impacts, it is possible to detect a clear cognitive difference concerning vision according to cultural value. When seeing an object, we human beings, regardless of ethnic, racial and linguistic background, view it in terms of a binary pair between an object in focus and its background. The former is commonly known as figure and the latter as ground in cognitive science. We all take advantage of this pair, but how figure and ground functions in actual practice may vary. Experiments carried out by Nisbett (2003) and Nisbett and Masuda (2007) suggest that there is a basic difference in perception between East Asia and

western countries. With the help of an eye-tracking device, the way we see objects is proven to differ, and Europeans are claimed to have a narrow focus in perception, so that people tend to gaze on a person or an object that stands out in a scene. People in East Asia, on the other hand, are more likely to attend to a broad perceptual and conceptual field, and due attention is paid to the background. Thus, when seeing a person in a picture, such as the one in Figure 6, Europeans tend to spend more time on gazing at the person, and less time is used to observe the background. East Asians, on the other hand, generally spend equal amounts of time on the person and the background when looking at a picture like Figure 6. This difference is schematically shown in Figure 8. Note that an option in bold has prominence in perception, and an Eastern view has both figure and ground in bold.



Figure 6. Difference in visual perception between figure and ground

Figure 7.

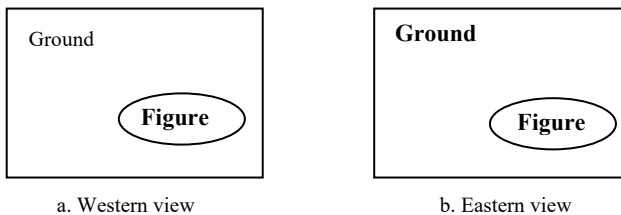


Figure 8. Schematic representation of figure-ground relationship:
(a) an European type; (b) an East Asian style

This difference is not restricted to vision-related perception but can be found in different aspects of human activities, such as literature (cf. Toyota 2012b: 7-9), and counting objects (Toyota, Hallonsten and Kovačević 2012). In particular, Japanese literature often finds beauty in something not directly mentioned. The haiku poem shown in (7), for instance, presents an extreme case. The theme of this poem is the prevalent silence in the background, which is not mentioned in the poem. What is actually mentioned in this piece is *oto* ‘sound’, and one has to read ‘between the words’ in order to deduce silence from sound.

- (7) Japanese
Furu-ike-ya kawazu-tobikomu mizu-no-oto
 old-pond-VOC frog-jumping water-GEN-sound
 ‘As a frog jumps into an old pond, there is a sound of splashing water. (And this is the only sound audible and silence prevails.)’
 (1686 Basho Matsuo *Nozarashi kiko*)

Linguistic orientation and fundamental differences in grammar

Reality and non-reality are often differentiated in language, e.g. *realis* v. *irrealis* modality. Depending on the language, this difference is marked in various ways grammatically, including subjunctive, optative, evidential, etc. However, the distinction can be made without any specific grammatical device. Consider, for instance, the examples from Russian in (8) and (9). (8) contains examples of possession, but expressed in two different constructions. (8a) involves concrete objects, whereas (8b) abstract concepts. Concrete objects here refer to something tangible or visible, and abstract concepts to something not visible and intangible. Speakers of languages such as English may wonder why this distinction has to be made. There are at least eight distinctive types of constructions referring to possession (cf. Heine 1993), and Russian employs two types, companion schema and action schema. It has a lexical verb *imeti* ‘have’ which should correspond to English *have*, but it cannot be used in the same manner as its English counterpart. Along similar lines, as observed in (9), negation alters the case marking. A declarative clause in (9a) contains a noun in the nominative case, but once the clause is negated, as in (9b), the nominative case turns into the genitive case. Note that these examples happen to be existential clauses, but negation normally forces a change of case marking in other types of clauses in Russian. Negating a clause denies the existence of objects referred to by the clause.