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**FROM CONCEPTS TO NEW WORDS**  
**NO JĒDZIENIEM LĪDZ JAUNIEM VĀRDIEM**

BACHELOR THESIS

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## Anotācija

Dzīva valoda nemitīgi mainās, un šis process norisinās noteiktā kārtībā, pēc kuras mēs varam izveidot likumus, kas palīdz tiem, kas valodu mācās. Tomēr jāatceras, ka pastāv izņēmumi, jo mēs nevaram izveidot likumu un akli sekot tam. Ir jāņem vērā vairāki aspekti – vārdu izcelsme, to vēsturiskās pārmaiņas (vārdšķiras un nozīmes), iespējamie atvasinājumi, un valodas izjūta, kas piemīt dzimtās valodas runātājam.

Šis darbs piedāvā diskusiju par to, kā mēs uztveram pasauli caur jēdzieniem, tādējādi atklājot, kā valoda mainās vai mirst; kā arī par to, kā šie jēdzieni veido loģiku mūsu domāšanā, kas savukārt rada sistēmu, kura rada jaunus vārdus.

Pirmā nodaļa iepazīstina ar valodu izcelsmi, ar teorijām – kā un kāpēc mēs sākām runāt, un ar zinātniskajiem pētījumiem šajā jomā. Otrā nodaļa izskata valodas izzušanas problēmu. Trešā nodaļa iepazīstina ar to, no kā sastāv leksikons. Ceturtā nodaļa sniedz nelielu ieskatu vāru veidošanā, īpaši – atvasināšanā. Piektā nodaļa izskata priedēkļu lietošanu Angļu valodā, un jaunu vārdu radīšanu.

Atslēgas vārdi: Etimoloģija, komunikācija, globalizācija, vārds (leksēma), vārdu kopas, atvasināšana.

## **Abstract**

Living language constantly changes. There are certain patterns how it happens, and from them we can provide a language-learner with rules. Though exceptions always exist, as we cannot make the rule and blindly follow it; there are many aspects to take for consideration – word origin, historical patterns of their changes (in category and meaning), possible derivations, and the sense of the language possessed by the native speaker.

This paper presents a discussion on how we conceptualize the word, thus exploring how language changes or dies; and how these concepts create logics in our minds thus developing patterns to create new words.

Chapter 1. introduces with origins of the language, the theories of how and why we began to speak and the scientific research in this field. Chapter 2. discusses the problem of the language death. Chapter 3. introduces the lexicon, what it consist of. Chapter 4. gives a short glance at word formation, more specifically – derivations. Chapter 5 discusses prefixation in English, and creation of new words.

Key words:

Etymology, communication, globalization, words (lexeme), word families, derivation.

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## Introduction

It seems that nowadays many people do not see the language in the fields of science. Public thinking does not see language the way academic thinking does. There are many opinions why this gap between academic and public thinking exists, some of them being that people have very strong (very possibly false) opinion about language, and they do not want to admit they are wrong. This opinion contrasts with the total opposite that many people simply see language as something so close to them and so natural (which is also true), but that it blocks the possibility for them to see it as something very complex and constantly developing for the mankind.

That is why mostly people are surprised to hear that language can be studied as a science through linguistics and other sciences. Some of them maybe knowing the general definition for science may say that language is one of the human activities, so it cannot be the part of the real science. However, linguists believe that their subject is science, because the goals they have set in this field are based on scientific researches.

This is why many do not see the scientific investigation part of language and that is why that previously mentioned gap exists – because many do not see Human Sciences as a science. Of course, they have not been that successful and fast-forward as other fields in science, but it is only because e.g. physics and biology acquires certain rules, and with few exceptions (though to prove that something works in a certain way there must be an exception of something totally opposite) it shows the same patterns continually happening again and again. But Human sciences, and language, searches for a patterns in human behaviour, and tries to reflect them and apply those rules not only to an individual, or a family, or a group of interests, but also to a larger concepts like one country (meaning one society, which has so many cultural aspects in common that they formed their individual community – a state/country), and even comparing those societies all around the world, to find out how much an individual has in common with every single individual of 6 billions? That is why this field develops much more slowly, but also with the greater versions of humanity in twenty-first century. Because it takes so much more to prove something based on our behaviour, when there are still 9 out of 10 cases when we wonder – how and why we did this or that? Though language posses one never ending quality – its regularity. And that is one of the basic aspects that separate us from other species.

Language is for scientific investigation in every single piece of linguistics' so called core – the physical world of sound (phonetics), the organization of sound in language (phonology), the

combination of sounds into words (morphology), the combination of words into sentences (syntax), the meaning (semantics), the way language is used to convey information (pragmatics), and this aspect in conversation and literature (discourse) and the way language interacts with other aspects of society (sociolinguistics).

The most interesting field just to think about, not talking about amazing scientific and historical researches, is the basic question – why we speak? And then all the sub-chapters, how our mind works, how we learn to speak, the formation of new words, studying a foreign language (or just grasping it, if spending enough time in different-speaking society).

The theme of the present paper is “From concepts to new words”. This bachelor paper investigates significant aspects and theories of linguistics that are concerned with the lexicon and words. To introduce the theme the first chapter is dedicated to language origins, so we better understand the development of human communication in synchrony (at some point in time) and diachrony (through the time).

**The aim** of the present paper is to discuss different aspects of how language can be investigated, and reflect some theories of how language arose and developed.

#### **The enabling objectives**

To attain the above mentioned aim the following tasks were set:

- 1) To study the available material on the topic and to carry out the most common opinions about language;
- 2) To search for material that clearly introduced with main topics of language, linguistics and lexicon;
- 3) To draw adequate conclusions.

#### **The hypothesis**

Language is a universal human “property”. Study of language necessarily involves study of human cognition and behaviour, social and biological aspects.

#### **Methods of research**

The research methods employed in the paper are both theoretical and empirical. Following theoretical assumptions is a discussion of the relevant aspects. The theoretical methods include the review of the theoretical accounts on language origins, language death, and the lexicon and word formation. The empirical method used to analyse the data is investigation of well know dictionaries, that are considered to be a rather big date base for printed dictionaries; and the Internet.

The paper consists of four chapters. Chapter 1 focuses on language origins, including such topics as historical research on language and ways of communication. Chapter 2 presents the problems of language death and globalization. Chapter 3 represents of what the lexicon consist of, and introduces with essential characteristics of a word. Chapter 4 focuses on the word formation as such, and more specifically on derivations.

# 1. THE ORIGINS OF LANGUAGE

To talk about language in more detailed aspects we should first look at it from the historical point of view. It is very important to understand first what language is, how it began and who are the speakers, in order to derive conclusions of how our mind works. Also to speak about specific words or rules in language we must know the historical development of that particular language, otherwise it cannot be fully understood. Thus in this chapter the focus will be on historical, neuro-biologic and specifically linguistic researches.

## 1.1. Theories of first languages

According to Darwin through the course of time and evolution we have developed from chimpanzees. So it always has been an intriguing question – how did we begin to speak? Much less interesting seems the following – why? Because it seems pretty clear that the more complex the world becomes the more we feel the necessity not only to speak about the basic needs and now, but also about some abstract happenings, new developed things and their place in different period of time and space.

There are several theories of the origins and developments of language. Starting from – did people begin to speak in one place and then it spread, or it flourished in many places simultaneously; also the theories of what was the first words and why differ.

Boeree (2003) has compiled some of them and suggests one of the following to be a possible true:

1. The mama theory. Language began with the easiest syllables attached to the most significant objects.
2. The ta-ta theory. Sir Richard Paget, influenced by Darwin, believed that body movement preceded language. Language began as an unconscious vocal imitation of these movements -- like the way a child's mouth will move when they use scissors, or a tongue sticks out when one tries to play the guitar. This evolved into the popular idea that language may have derived from gestures.

3. The bow-wow theory. Language began as imitations of natural sounds -- moo, choo-choo, crash, clang, buzz, bang, meow. This is more technically referred to as onomatopoeia or echoism.
4. The pooh-pooh theory. Language began with interjections, instinctive emotive cries such as oh! for surprise and ouch! for pain.
5. The ding-dong theory. Some people, including the famous linguist Max Muller, have pointed out that there is a rather mysterious correspondence between sounds and meanings. Small, sharp, high things tend to have words with high front vowels in many languages, while big, round, low things tend to have round back vowels! This is often referred to as sound symbolism.
6. The yo-he-ho theory. Language began as rhythmic chants, perhaps ultimately from the grunts of heavy work (heave-ho!). The linguist A. S. Diamond suggests that these were perhaps calls for assistance or cooperation accompanied by appropriate gestures. This may relate yo-he-ho to the ding-dong theory, as in such words as cut, break, crush, strike.
7. The sing-song theory. Danish linguist Jespersen suggested that language comes out of play, laughter, cooing, courtship, emotional mutterings and the like. He even suggests that, contrary to other theories, perhaps some of our first words were actually long and musical, rather than the short grunts many assume we started with.
8. The eureka! theory. This theory suggests that perhaps language was consciously invented; that some ancestor had the idea of assigning arbitrary sounds to mean certain things. Once people had the idea it spread with the speed of light.

For an individual to decide which theory he believes in it is important to study all the aspects of language, in both – synchrony (at some certain point in time) and diachrony (historical development, through time). Also relation to other sciences must be taken in to consideration, e.g. Carstairs- McCarthy (2002; pp.8) turns our attention to the point, if our ancestors truly were chimpanzees than take in account the fact that the organs of speech of a chimpanzee can produce a limited number of sounds (twenty – thirty calls).

The search of the origins of language is one of the most recent branches in linguistics. Though an idea to discover where language comes from always had been there, as a science it earned some respect not very long ago.

The very exciting part of this topic is that we cannot govern the answer by the set of rules, nor take one theory as the ultimate truth. One should observe them all and choose one the closest to his understandings or believes, and then study the topic.

Although there is no knowledge to prove one or the other theory to be right or wrong, there are many exciting facts that make them all true and false in the same time. Steven Pinker (2002), the linguist, in his book “The Blank Slate” writes about some interesting facts which come from the study of language origins. He writes about topics that make us believe that all human begun to speak rather simultaneously, because there are quite many facts which shows that our minds work somehow alike. He mentions such language universals as arts (there is no culture known without any kind of arts, but all of them definitely have verbal arts – songs, chants, tales, poetry), love, colour white. So if first humans felt the necessity to express more or less similar things, than there is also a possibility that it arouse more or less in the same period of time. Also Pinker (1994,) mentions in his other book, “The Language Instinct” (pp.297-331), that we all somehow are genetically predisposed to speak, whereas e.g. pets are not, though they spend all their lives around us, but never picks up the language. Of course, there are exceptions again, like parrots can repeat some sounds (words), because of the way their vocal cords are built; but it is not certain if they understand what they are repeating. Most probably not, and if a parrot’s owner points to something and the parrot can name the thing, it doesn’t necessary mean that it understood the concept of the thing. It just somehow learned to associate the sound with the thing. But then again, abstract concepts are recognized by humans somehow similarly. On the other hand, there are many interesting facts about other birds, like ravens. It is proved that they can create logical schemes in their minds, they really think. Some simple things, essential for survival – they recognize a face of an enemy, or know the way to access the food. Though what they lack is the ability to say it out loud. Here again is the next group of animals that can actually send their message onwards, like previously mentioned chimpanzees: they would know if an enemy comes by the warning cries of others. But again, what they lack is the ability to communicate throughout the time. Any form of communication among creatures lack the aspect of past and future, they have only this particular moment. Though in their minds they have some pattern of it, as they remember enemies and where the food is, animals cannot actually talk about those things, and give the advice to the next generation. They share genetic code so they are predisposed to some activities, but the mankind bonus is that besides that we can also communicate verbally.

Religion has always played a part in human society. So also from religion comes theories of when we started to speak, like from Bible, that God gave to Adam dominion over all animals and

his first exercise was to name things; or the reason of language diversity is explained through the tale of Tower of Babel.

There is no evidence of whether language began before or with the recorded history, but most of the scientists share the theory that it began before that. Also here in this paper we will agree with this theory that necessity to write things down came (slightly) later than the actual communication. Though these two concepts could not stand too far from each other, because as mentioned previously – if humans had an ability and necessity to communicate in terms of time and space, than sooner or later to reflect “yesterday” or predict, suggest “tomorrow” they started to put things down.

Here we should talk about the first writings. There are three main types of writing: pictographic, ideographic and phonographic:

- 1) Pictographic writing – pictures are used to represent visible objects. This type of writing shows objects only, not actions;
- 2) Ideographic writing – consists of ideographs, and they show also non-picturable things, ideas and actions,
- 3) Phonographic writing – when a symbol is with exclusive phonetic meaning, like a syllable or a letter. The beginning of the first phonetic alphabet dates back to 15-10 BC.

Till nowadays there have been developed many different types of writings, and they are applied for different situations. Like besides now mostly used phonographic writing in some languages hieroglyphs are used. Here besides these two types arose the next important – transliteration (phonetic pronunciation of a word from e.g. Chinese is putted down in phonographs. Basically it is when one writes down the words how he hears it, without spelling rules or specific signs; also used to learn Greek.).

Then there is the international alphabet of transcription, and international language of math. For blind people there is Braille (two dots wide, six dots high). During war people came up with the Morse code – the combination of shorter (dots) and longer (lines) sounds, and each combination means certain sounds or words. Or in court popular is shorthand, which helps easily put down speeches, when it is hard to put down every full word of the speech.

What takes our attention even more to the fact that humans began to speak somehow simultaneously; and that even language usage is governed by sets of rules we cannot make them up (but we conclude them by studying the origins of words) is that there has been several attempts to artificially create a language. At the present moment the most recognizable is Esperanto. It is used among doctors or scientists, and there are several magazines and newspapers

printed in Esperanto. However it is not that popular and is not affecting globalization as much as natural human languages spoken by large numbers (English, Russian, Chinese, and Spanish).

There were attempts to create language artificially before Esperanto, but it somehow seems that language cannot be made up. People much rather pick up pidgins than artificial languages, because for pidgins there is a reason, and there is logics, and there are still some patterns and rules of the living language. We share some genes to speak, and our minds work somehow in similar patterns.

Also secret languages are created to pass secret messages, like among spies, or some community. Children also tend to invent their own languages, so that adults would not understand them.

## **1.2. Historical research**

Related sciences (Anthropology, Biology, Archaeology), study not only cultural aspects of human evolution, but also biological, because language is not just a cultural phenomenon, but also is a very specific distinguishing aspect from other species and Homo sapiens.

There is no evidence of how early human's organs of speech were constructed, as Archaeology's evidence is only bones. So we do not have clear proof that they were the same or very different, so again it is a question that can be answered with guesses only. Archaeologists study the structure of bones of our early ancestors, and try to rebuild how their soft tissues may have looked like.

Though the first evidence of writing dates back to 3000 BC (online; 1992-2007), it is so much more likely that the spoken language came much earlier.

What Archaeological research lacks is the evidence of different stages in linguistic evolution. There is some point in history where we can draw a line that before that language did not exist, and the second after which it exists in its fully modern form. In between there is a gap to be filled, with guesses based on Archaeological evidences.

Here Carstairs- McCarthy (2002) gives an example comparing two different cases in a course of evolution – from animal world (an eye) and human (the language). He writes that: “we can be reasonably confident that modern-style spoken language evolved only once. This is not logically necessary. It is conceivable that something with the communicative cognitive functions of language, and using speech as its medium, could have evolved independently more than once,

just as the eye has evolved independently more than once in the animal kingdom. However, if that had happened we would expect to find evidence of it today, just of the eyes of octopuses, mammal, and insects reveal by their structure that they have no common ancestor. Yet no such evidence exists.” What he points out is that there are so many different languages, divided in different language groups and types, yet they all “display certain fundamental common properties of grammar”. It is known that if child after birth is removed from his original place of birth (and society and language) that s/he will still pick up the language of the new family- without difficulty or without showing the attempts to speak his mother’s tongue. So we are not genetically predisposed to speak one particular language, but just to speak. So here it brings up the possibility that only one language was spoken in the time of its developing, and only after groups of speakers were separated, thus creating new languages, terminology, dialects and writings (as we remember – writing came much later).

It is also known that humans are possible to a very wide diapason of sounds, and huge variety of sounds; but if one trains only some parts of the organs of speech, other language may become difficult to pronounce (e.g. Russians rarely can pronounce Latvian diphthongs without accent heard, because in Russian they simply do not exist, the same refers to long vowels. Another language is e.g. Latvians trying to speak Dutch; the problem is “g” which is pronounced in very different manner. In Dutch “g” is a fricative, pronounced as “ch” in loch.); difficult, though not impossible, as we are born all with the same organs of speech.

Scientists have compared human’s vocal tract and the organs of speech to mammal ones (*Figure 1.1.*). And it has been found that they are different. They are also different if to compare to those of a newborn, because it is essential then that they can breathe while eat, and the L-shaped vocal tract of a grown up develops after the first year of life. It is very interesting when and how humans developed that differently shaped vocal tract and begun to speak. Carstairs-McCarthy (2002, pp.10) explains that some scientists (DuBrul 1958, Aiello 1996) claim that “the L-shaped vocal tract is a by-product of bipedalism, which favoured a reorientation of the head in relation to the spine and hence a shortening of the base of the skull, so that the larynx had to be squeezed downward into the neck” (and that makes possible the pronunciation of modern range of vowel sounds). But this again includes question – when humans became bipedal? According to the data from Anthropology research human started on two feet very early, around 3 – 3.5 million years ago. So it leads to logical conclusion (if we take previously mentioned as a true) that L-shaped vocal tract also developed very early, and so as the capability to pronounce wide range of sounds.

The other group of scientists – language origin researchers – says that the lowering of the larynx (which is also a higher possibility of choking) was rather a consequence of speaking more sophisticated language, than the precaution to do so.

As the research of human brains and the way mind works is still very mysterious, and as there is no evidence of how the brain of the early homo sapiens looked like, those are very foggy guesses if there is a certain part in our brain that is concerned by language only. From researches of a modern human it is more likely that there is no area in the brain that works for language only. And the closest found, functioning more for the fields of grammar and speech articulation, called Broca's area, also exists in other mammal brains, e.g. in monkey's, but they not seem to start to articulate same sounds and create language.

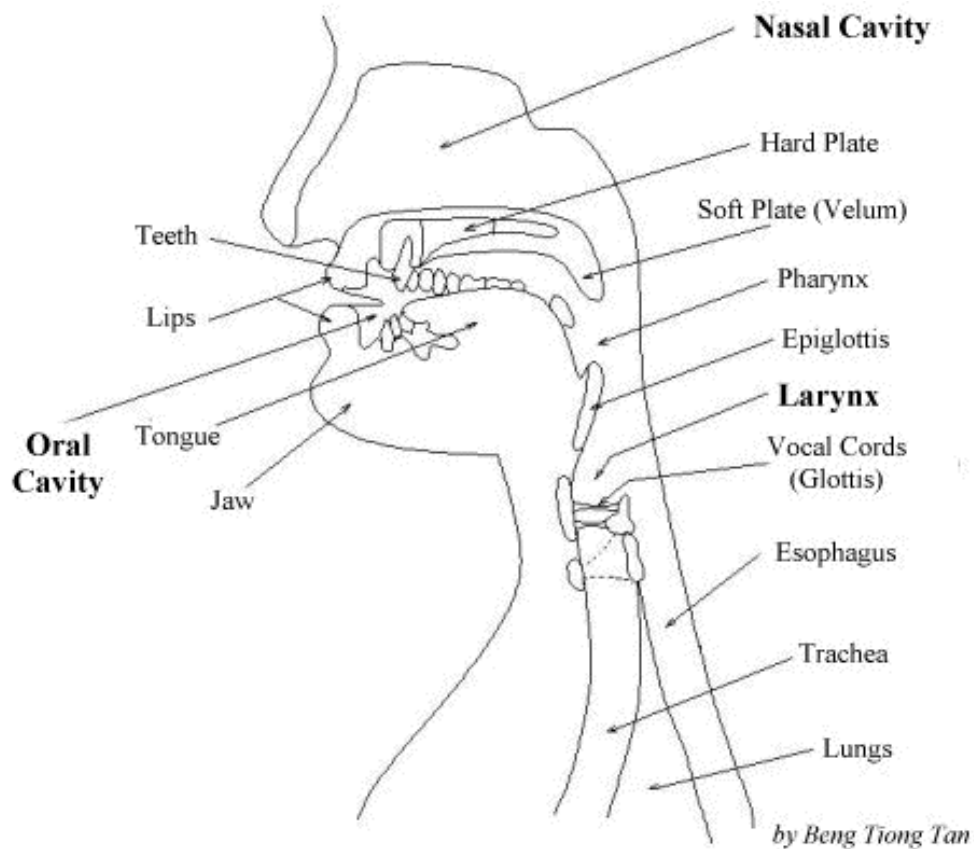


Figure 1.1. The Organs of Speech

Bradshaw and Rogers (1992), claimed that there must be some connection between the fact of the human usage of the right hand as a dominant (and that it is controlled by the left side of the brain, where the parts that are essential for language are) and that animals do not have this

predominance. Though there is no evidence of first Homo sapiens and whether there was any dominance in usage of hands. Also it seems to be very obvious that left handed people still speak and acquire language the same way as right handed, and in their brain still the left part is responsible for language, same as for right handed ones.

We can easily conclude that if there was a crucial turn in language, so there must be one in culture. There is a point in history, around 30 000 years ago when all tools found from that time are more advanced. Though that period in history does not match with the time when scientists suggests that the modern language emerge, and that is more recent. Here this change in human culture maybe is not when the modern language begun, but maybe it is when the first language of self-conscious drawing of symbols and painting emerged.

### **1.3. Relations between humans**

In 1970s the new science, molecular genetics (online, 2010), widened the view on how people are related with their first ancestors and through the years to follow – to each other. Now it is genetic evidence that shows us we are separated from our very first ancestor, which we share with chimpanzees, by about 5 million years.

This science based in the knowledge about DNA can explain our relations to each other, all around the world. As there has been a big step forward in these researches, now we can find out how similar is our DNA, and not only that carried in every cell in our body, which we have got from both of our parents, but also the other – very specific one – mitochondria, which carries the information inherited only from the mother alone.

With the use of this information scientists tried to locate the most recent woman from whom we have descended. They claimed that she lived in Africa about 200,000 years ago. This research also showed that none of her contemporaries have any relative alive; though anyone can argue this, as anyone related to that “first woman” (nicknamed African Eve), have one male separating them, so it cannot be certain again.

However, there is a theory that around that time, 200,000 years ago something happened in history, and there are no living descendants of people of that time. There are two widely discussed theories – why? One is that what prevented others from creating families with African Eve’s clan is that they already spoke some language, that they had superior linguistic abilities, maybe even newly acquired. The other theory is that there was some kind of disease that killed

off that community. Though it is very vague guess that first version of more sophisticated linguistic communication would be the same as for the first modern language.

## **1.4. Ways of communicating**

Humans are the only primates with the ability to speak. Though, as mentioned before, animals also communicate, and some research with apes shows interesting facts. Research has been made in three areas – vocal call system of primates, cognitive abilities of primates, and their understanding (if there is any) of social relationships, and attempts to teach primates sign languages.

### **1.4.1. Vocal call systems**

Just a couple of decades ago a general idea was that all the communication of animals (cries), also primates (apes, chimpanzees) are simply a reflection of physical or emotional state, that being – pain or hunger.

From 1970s, up till 1990s, Cheney and Seyfarth (online, 1980) spent many years observing and investigating the communication among the vervet monkeys (in their natural environment, the Amboseli National Park of Kenya).

Carstairs- McCarthy (2002) reveals interesting facts that those scientists came across: “These small monkeys utter distinct warning calls for different types of predator, notably leopards, snakes, and eagles, for which different types of evasive action are appropriate: they run up trees to escape leopard, peer at the ground around them to avoid snakes, and hide in bushes to evade eagles”.

To prove that these little monkeys’ cries are not just an exclamation when they saw a danger, but that they are really referential to a particular danger, followed by a particular action, Cheney and Seyfarth recorded all of their cries, and played them back to the vervet when there actually was no danger around. And the vervet monkeys still performed to each sound as there was that one particular danger, and it showed that it is a meaning -encoded sound, not just a cry of fears.

The other interesting fact is that it was taken for granted that animals, unlike humans, cannot tell lies or make mistakes, because it was believed that their calls are a direct reaction to

something. It proved wrong, too. When observed, it happened that young vervets made mistakes, as they are not that experienced yet, and cried out the eagle-warning when there was no eagle (or something else in the sky). And what also was interesting, that adult primates did not react to their cries immediately, they checked for danger before acted. It shows similar pattern to our world, when we not always believe children or youngster, and check if they lie or not.

Vervets also distinguish different voices, because when a young primate cries out, they look at their mother, and check with her, if the danger is real. So firstly they know that the young ones can be wrong, and they also know whose baby it is.

Of course, primate call systems are not grammatically structured as human language, but still, they are not as incomparable with language as we once thought.

### **1.4.2. Cognition**

The previously mentioned observations of primates has also shown that they are more self-aware than we thought (they actually know some things about themselves). As mentioned before, they can actually tell apart their enemies or anyone who are danger or did something bad to them. From grammatical point of view this would be the participants' role in a situation. Of course, primates do not use grammatical terms and do not structure the sentence, but they definitely have the thematic structures of their communication. Scientists claim that higher primates are not only capable of "knowledge-how" but also "knowledge-that". In some laboratory researches it has been found that chimpanzees can not only grasp the concepts "same" and "different", but also they differentiate colours and size.

Experiments have shown that primates have the same need for socialization as humans. But the larger the group, the less time for food gathering and other essential tasks, because most of the time is spent grooming. So there is an idea, that language is what keeps human together and alive same time, because with language communication is like "vocal grooming" and many individuals can be groomed simultaneously.

### **1.4.3. Sign language**

As discussed in this chapter before, animals do not have appropriately shaped organs of speech to produce sounds that we recognize as speech. But apes definitely have fingers shaped in

a way that makes possible to sign, like for sign languages. Around 1970s many experiments were dedicated to this topic, and scientists were eager to show that language is no more a unique ability of humans only. Outcome, of course, was that apes are not capable of complex syntactic forms, but that they can communicate in the level of what for babies in their course of language acquisition we call the “two-word” stage (approximately 18 months). To sum up, apes do not communicate with signs in that advanced level as people using sign languages, though this experiment was very important in terms of language evolution itself. Armstrong, in 1995, suggested that humans firstly begun to sign, and only then speak. Perhaps as apes now can sign, but cannot talk, maybe humans went through this pattern of evolution as well.

After these new ideas there was a doubt if apes were so advanced to cross the line of just an iconic to a symbolic communication. But it clearly showed with the vervets, that it is possible as their calls for e.g. eagle did not sound as eagle at all. So if they crossed this line, so maybe as our ancestors did when begun to speak. It answers the question how first humans acquired the language if words are not strictly iconic but rather symbolic.

## **1.5. Neurobiological research**

As it would be anti-human to experiment on an individual’s brain by the means of surgery, not much is known clearly how our brain works. There are just some facts known from magnetic resonance images that are taken for people with some brain damage (after disease or accidents). And what has been found that not only human have the priority for gestural channels of speech, but that also we have more sophisticated mental representation of the world.

Neurobiological research shows that if a person loses one of the senses (vision, hearing) brain activity for other senses grows, like Carstairs- McCarthy (2002) mentions that for blind people the area for finger controlling is significantly larger than for a person with all senses working well. Also investigating a child who is born with some damage of the left brain hemisphere, which is responsible for the language, new guess arouse – how language acquisition was possible at all; because it must have involved new parts of the brain which originally served for other functions. Some other researches shows that the part of the brain which is responsible for language is quite far from one controlling movement, so the next question is – was it really so, that first humans begun with sign language and only then switched to speech? Previously

mentioned Broca's area is more close to that part of the brain which control the movement of lips, jaw and tongue, rather than hands.

That research of connections between spoken language, sign language and the way our mind works suggests that "human language has always been predominantly vocal" (Carstairs-McCarthy, 2002, pp. 16) .

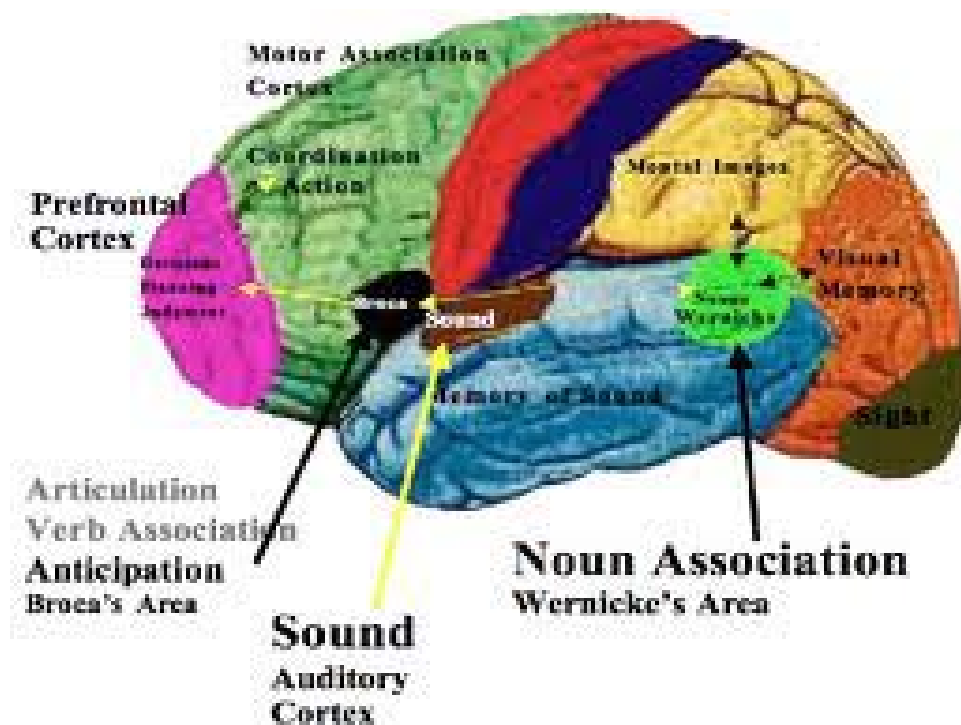


Figure 1.2. Human brain, areas that works for language production

Also it has been found that if there is damage in Broca's area affects grammar and articulation more than vocabulary. Some other findings suggest that "for syntax to evolve as it has, something more specialized than just general conceptual sophistication was necessary".

## 1.6. Linguistic research

Researches made in the field of previously mentioned pidgins and creoles shows that when children pick up pidgin and turn it into their native tongue (Creole), they begin to use grammatical features which were not present in their parents' pidgin.

Another interesting fact is that human brain changed in size not in a steady pattern. The question is only why Homo erectus, capable of many quite sophisticated actions (tool making etc.) did not speak? And here maybe lies the answer to the question why it did not survive and Homo sapiens took his place: because Homo erectus lacked the ability to communicate, thus could not make big steps in science or any other modern field of human society. Bickerton claims that Homo erectus was as much aware of socialization and relationship as present day apes. As Carstairs- McCarthy (2002) puts it: “Linguistically, they were trapped throughout their lives at the two-word stage of the modern toddler”.

Other linguists have pointed out negative (Chomsky) and positive (Pinker and Bloom) aspects of grammatical engineering. This question arose when scientists found that not all of our body/brain parts are the best equipped for the purpose they serve. So is grammar really is humans ability to think more sophisticated or it occurred just because it could not happen differently in terms of brain evolution?

In this chapter it was shown that the study human brain is one of the most exciting and mysterious field in which science tries to brake in; alongside with language it courage scientists, anthropologists and archaeologists to ask big questions. None of them is the real and ultimate answer yet, but the findings of how and why we begun to speak and still do are more and more surprising with every decade. From theories full of doubt that human begun to speak for a reason (physical or mental) till theories of Universal Grammar and our brain capacity this topic of Origins of Language will still occupy many of future linguists and scientists for many more years.

In this chapter there has been given evidence to support the fact that to record any data available is essential for these sciences to develop; so the next chapter will be devoted to the problem of language death, what causes it and how important is the heritage of any language.

## **2. THE DEATH OF LANGUAGE**

In this chapter we will explore main reasons why such thing as language death exists, and what are main reasons for that. Also we will look at the main reasons for language death.

It is essential to understand this, because losing language means to lose lexicon – words. It will be discovered that many languages include words that are long lost for widely spoken languages. So basically by losing a language not always we know what exactly is that what we are losing.

Also we will see which factors are critical for language to survive. Some may find it surprising that those are not just speaking and writing, but also thinking in that particular language. So we will look at reasons why and how it works.

Harrison (online, presentation at Pop!Tech Conference, 2008) claims that there are over 7000 languages spoken all around the world and a language dies every 14 days. He also says that by this we do not know what we are losing, because language is the greatest knowledge of mankind, and most of those languages have never been written down, and during this century we will lose 3.586 languages – a half of world' s languages.

### **2.1. Globalization**

One of the biggest problems in 21st century that causes language death is globalization. Globalization by its definition means bringing all regional activities, culture and trade to a global network of communication, transportation and trade. First dictionary entry “globalization” appeared in Oxford English Dictionary in 1930, though word itself appeared some 30 years earlier. Those were times of big changes in the world, and, e.g., economists speak of globalization as a very positive aspect, because these changes opened many borders and widened horizons for economics and trade. It has also positive factors meaning that people now has many more opportunities to travel, work and access services, other people, etc.

Though for language heritage globalization causes a huge damage. People need one language to communicate in. it is much more complicated to learn foreign language for work purposes, if now we have a possibility to work with all the world, which means (roughly counting out very small languages (spoken only by 3 – 1000 people (which are most of all 6.700 (2010))

and those dying every 2 weeks) we have to know at least 400 languages, including a couple of sign languages, to do business worldwide.

That is why people tend to switch to bigger languages, like English, German, French, Russian, Spanish and Mandarin. What historically made those languages widely spoken seems that whether they are by some reason easy to learn and pronounce or they are outnumbered by the number of individuals using it.

## **2.2. Main factors to keep languages alive**

We have to understand what it is what we are losing

It all begins with recognition. A problem exists – people do not think global. They do not pay much attention to language use. It causes damage to language – bringing in new words made-up words, borrowings, slang. Though to change is a part of living language (we will return to this later, in factore3.), most of these destroys language. It is because people in general do not see language as science, as a crucial tool to keep different cultures alive, to save regional knowledge and history. We have to see a bit further then our doorstep to understand that there is more to language then everyday use for communicational purposes. But to do this there has to be an intelligent society, the one that does not get tired of keeping their language alive.

Harrison (online, presentation at Pop!Tech Conference, 2008), in his lecture speaks about unimaginable knowledge we are losing. Like in Siberia there is a language (spoken only by 3 people, never has been written down), and they had a creation myth that world came out of a duck's egg, a lunar calendar, more precise than ours now (they did not need a leap year) and linguistically encoded mental map, more precise than any map created regarding to satellite photos.

And what is very sad, as we are born genetically predisposed (Pinker, 1994; 2002) we are losing ideas that have never been written down or shared.

### **2.2.1. Documentation**

By this we understand not just writing down, but also creating a database with audio and video materials. For language it is essential to gather all there is about it. To talk about grammar or historical change of language we have to know how it is written down and how it is

pronounced, as well as in the video we can observe the manner of speaking, which is also a huge part of society in which language is spoken, and says a lot about its culture in general, or maybe expresses the individual.

For that previously mentioned Siberian language there was no writing, but one of those 3 speakers invented his own writing to put down on paper the stories of his language. After sharing this information with a layperson it has been heard that it must be very artificial, there cannot be any rules, so this writing should not count. But this is what we sometimes do not understand that historically language was written down by its everyday speakers not some scientists or linguists. And even if some spelling rules should be improved (which, sadly, do not refer to this language, because changes happens to a language in use), it can only happen by those communicating in this language, because they possess the sense of that language, and we definitely do not.

### **2.2.2. Language usage**

There are definitely many reasons why some languages survive and some do not. Of course, general reasons are ones mentioned before – language is easy (somehow more suitable for our way of thinking), or there are large groups of its speakers, etc. But what are main factors to keep a language alive, even if it is not among those most spoken?

Latin is a phenomenon – a dead language still in use. But what takes our attention to it in this chapter is how its usage works, because clearly it is not spoken anymore. Latin carries an enormous descriptive lexicon which we still know how to use (how to read and write and pronounce), and we still have a knowledge of its meaning.

Though Latin cannot be used as a language for verbal communication (outside of particular scientific corpora) and is considered to be a dead language. Of course, the big reason is that Latin is not spoken anymore and thus loses a natural change and flow of it. But what is even bigger reason, for us to consider, is that there is no one thinking in it.

So we can conclude that the fact that a group of people in sciences still writes in Latin, and even says it out loud doesn't make it alive, for that simple reason that they cannot think in this language. A natural sense of language of individual is lost, so with it goes creation of new words, phrases and expressions; and with this basic sense goes jokes, manner of expression, errors in language (we all make mistakes, but dead language it is impossible, cause there is not more to it that what is already written down, there is nothing new to add) and many more. Because the one

who will try to change a dead language has no idea, if that change he made would sound natural and if someone speaking that language would understand what he meant. And so we see that if there is no one thinking in a language, any change in it would be artificial, and the language would become dead.

This chapter discussed general reasons for language death and showed one of the approaches that can be used to learn more about language, lexicon and words.

It included a brief historical glance at globalization, and when we started to get worried about languages. It also provided us with essential information about what causes the death of a language and how we can try to keep our language alive. As well this chapter suggested why it is important to understand what are we losing by losing a language.

To conclude we can say that it is important to educate the society so it becomes clear also to a layperson that language is more than sounds that comes out of mouth. There is also a part to which we have to show that they may be wrong about their knowledge about language; language is not just a communication, it is also a reflection of our mind – it shows about what we think, how we think.

Our mind is structured in a complicated way, and so is language. We have to understand what a treasure our ability to speak and think is.

The world is changing, and so is our lexicon. We hear Latvian-Americans saying that our Latvian has become much polluted with Russian and other words. But on the other hand their variety of Latvian sounds too technical and artificial. They still use words that our Latvian speaking community has dropped and many young people wouldn't even understand them. Of course, it is amazing that somewhere in the world people are trying to save a language; but they do not think Latvian. Language is frozen in some point in time.

So the next chapter will focus on the lexicon, to better understand of what language consists of.

### **3. THE LEXICON**

The way we construct the language can be divided in two larger groups – the lexicon and the grammar. The lexicon is a set of basic units in language and the grammar is the set of rules how to combine those basic units.

A lexeme is the smallest part in lexicon with the meaning. This, among other basic units it contains, must have a form and a meaning. Then grammar provides the rules that show – how those units can be combined and what more complex forms are allowed, so that language becomes logical.

Those basic units of the lexicon are words. The first thing we always look at is – what it means. /word meanings. But there is so much more what linguists think about when they think about a word. Linguists even say that it is not possible to find a clear definition for a word “word” itself. Meaning – there isn’t one definition that could be suitable for all languages.

Here we will explore, according to Cruse (2002) what properties a lexeme and a word possess, how to combine them and to group them.

### **3.1. A word and a lexeme**

There is also difference between a word and a lexeme, because one word can have many meanings, and those then are different word forms, while all of those forms are still lexemes belonging to the lexicon. Here is an example:

- I wanted you to want all this!

Want in this case is the commonly used basic form. Want and wanted are not two different words, as Cruse (2002) explains (except cases where only one of them is the right answer, like crossword puzzle), but two different word forms, but they still belong to one lexeme.

So here also adds up that lexeme are not only the smallest units of the lexicon which have a meaning, but also is a dictionary entry. So basically a dictionary provides us with lexeme and if there are any other widely used word forms they are listed below, not as separate words. But again, if one word (one lexeme) has more than one meaning (i.e. there are more than one meanings and they are not synonyms of any kind (absolute, propositional or near)), they would be listed, most probably, by the frequency of use, not under one entry.

Most of the words possess more than one meaning and it is easier to grasp them in context.

- Sit on my lap!
- This is the third lap in this car race.

It is understood that in the second case it cannot be the part of the body.

Also not all words can be directly translated into other language just in one word, because different cultures may have different necessities what to talk about so they adjust their lexicon. It

may be assumed that words more differ in very small tribes. For example, they maybe speak about concepts abstract to us, like – to be out of the village for more than 3 days on a hunting trip. But also there are different reasons, like unions or separation of some countries, during the war. For example, after the war between Serbia and Kosovo, people from the letter begun to call a goat not even in different word but in a combination of words – an animal that walks around the house and eats grass.

Grammar rules always respects word boundaries. In Latvian word order may be changed more easily than in English while keeping the original meaning of the sentence, but in none of those languages a new word can be added in the middle of the existing word.

### **3.2. Semantic relations of words**

There are certain rules how to combine words. Usually a speaker of a language has some coherence which intuitionally allows him to do that correctly. When we look at word combinations it means there are a chain where no gaps must be filled, it has to make sense.

- An easy-going person.

Here we can take a look at how different words combine. If we can still say easy person, and have a certain meaning for that, then going person wouldn't make a logical phrase by itself (it feels like two words are taken out of the sentence and make no logical combination without other words.).

There is also a possibility of finding a word which defines these words, e.g. easy going – natural, relaxed. Also we may say that an easy person is - calm. But we cannot combine those words like this – natural calm. Those are just two adjectives making no sense at all.

So there we see that there are certain ways to combine words. Even if some of words in this combination together may form another one word, it doesn't mean it can always be used when combining with other words.

That is what Cruse (2002) calls an “internal completeness”. He explains that words must construct the chain of meanings.

### **3.3. Holism vs. Localism**

Cruse (2002) also writes about two ways how people talk about the meaning of the word. First is the holistic approach – which means that the meaning of a word is expressed only by using other words, or it arises through other words, and the meaning can be grasped in context. The other is the localistic approach – when a person claims that the meaning can be described without the help of the meanings of the other words (it is self-contained).

#### **3.3.1. Holism (the contextual approach)**

A holist believes that the meaning of words can be acquired by studying the relations of a word to other words or to context.

This approach firstly explains Structural semantics - that a meaning cannot be learned in isolation. If one can give a name to a thing every time s/he sees it doesn't mean that s/he can differentiate this thing from other that are alike, from same group (Cruse, 2002). Like – if one can name a pen when there is one is not only the only case which shows that the meaning is understood. What matters is that s/h can also give names to pencil, crayon, etc., and knows the difference between them.

Pen and pencil and others belong to a larger group, they are writing supplies. And those again may belong to office supplies or school supplies. And there are other words that have a relation with pen – ink, colour, paper, and brand.

So basically a holist would say that the word is understood only when all of the links that are possible between words are discovered.

The theory of Normality of words is the second approach of this theme, and is based on Haas's idea that all words in context are at some level normal (or abnormal). Like - the green plant would be the normal version, but the pink plant wouldn't be. There are also synonyms which differ in normality.

- I will see you soon again. (More normal)
- I will see you soon once more.
- I got a job! (More normal)

- I got a work!

So then those can be used in the same context without making any difference in the text would be the absolute synonyms.

- Show me the photo with him.
- Show me the picture with him.

“Don’t ask for the meaning, ask for the use” (Ludwig Wittgenstein).

### **3.3.2. Localism (the componential approach)**

According to Cruse (2002) a localist would say that all the meanings of words are consequences of the relations between words (not that those relations shows the meaning).

Here the meaning is viewed as the absolute summary of all the bits of meaning which are related to the word.

This approach is very complicated and not fully studied, as it is not fully explored how our mind works. This is rather based on the theory that we are genetically predisposed and have the language instinct (by Steven Pinker), thus we understood things simply if they are language universals.

Here are some examples (very simple ones) how this theory can be seen:

- Mother = human/ woman/ child
- Socks = clothing/ legs
- Kitten = cat/ any gender/ young

### **3.4. The conceptual semantics**

Before the growth of the cognitive psychology linguists and semanticists did not believe that there is enough knowledge about a concept to involve it in language sciences. So the basic research was concentrated on word meanings, not how they are interrelated with concepts and if this relation is direct or there is some other link in this chain of thinking.

Nowadays, we tend to believe, or even, we say that there is a connection between word meanings and concepts, and that the world is expressed through those concepts, but not necessary words. Because a concept may be a language’s universal, but a word may not be. As we saw previously in this text – different cultures describes concepts with different words, or even

different amount of words (when we have a word for a goat, some other culture have a chain of words describing this concept “goat”).

So the most efficient way to study words (in any language, anywhere in the world) would be through the concepts, not the word meaning.

### 3.5. Ambiguity of a word

Word can also show its variety of meanings in different contexts.

- My cousin’s husband is German.
- My cousin’s name is Jonathan.

Where in first case it is clear just out of the context that my cousin is a female, and in the second case it is a male. Without that context the gender remains unknown (apart from the case if I have just one cousin and everybody already knows her/him).

If one says:

- I have to meet my cousin.

It is not known if the cousin is a male or a female, but from this little we already know that it should be one or another. Here, most likely, the speaker already knows who he is meeting with, but there might be cases when it is not necessarily true, like in:

- I have to meet my new boss.

Speaker may not know yet, is it a male or a female boss.

There is a general meaning to a word boss, so it is suitable for both cases. As it can also be a mixed group there is no need to give two definitions for this word, so this one is not ambiguous.

Or see this example:

- Flying planes can be dangerous.

Without any further explanation of where we are in this situation it remains unclear of which act exactly the author speaks. Is it dangerous to be in a pilot’s seat or in any on the plane?

Here speaker, knowing the context, will assume we chose the same variant as he meant it to be; though both variants may be correct out of the context, they cannot co-exist, the selection must be made; thus if we do not know the context we will choose from our personal experience.

Here it can be talked about the so called identity test. In sentence:

- I changed my location; so did you.

The word “location” in both parts of the sentence has the same meaning. So “location” is an ambiguous word. But in sentence:

- I had a meeting with my boss; so did my husband.

There is a possibility that “my boss” is a male, whereas “my husband’s” is a female, or vice versa. Here is no reason to assume that the boss in both cases is of one gender, so this second example with “boss” fails so called identity test.

Also we must take a look at “yes” or “no” case. There are also sentences which we can answer with any of those two words and both variants would be true, and simultaneously, like in:

- Do you enjoy drinking?

Where it may refer to an alcoholic or non-alcoholic drink; and it may be both that a person enjoys partying and drinking and just enjoys a drink when is thirsty.

Or in sentence:

- Did you phone mum?

Here it can’t be simultaneously true or false answer.

Then there is a case of the grammatical zeugma. In this case a word modifies more than one word, when it is appropriate only to one or both but in a different way.

- I caught hundreds of balls he threw and a cold, too.

Here “catch” refers to “balls” and “cold”.

### **3.6. Polysemy and homonymy**

Word meanings in contexts maybe related and unrelated (Cruse, 2002). As we found out before, in case of “cousins” it may be totally unrelated, whereas in “catch” case it is related. So from here we can continue further discussion of sense relations. In first, unrelated case we say that word is a homonymous; in related (catch) case we say that a word is polysemous.

### **3.7. Paradigmatic sense relations**

Those relations between word meanings are called sense relations. In general speaking every two word are related in some way, but to truly speak about this case, there must be some frequency in use to make some conclusions.

There are two cases when we speak about grammatical sense relations, and we will explore them below.

In this case we will see how a person chooses the words according to his/her personal experience.

- I keep --- as a pet.

Here some can choose an animal, a bird, a mammal, a reptile; and others go more specific and say a cat, a dog, a canary bird, a rattlesnake.

And we will also explore that these choices (though based on a world we each have seen) are coherent, these words somehow “go together”. In a regular case no one would choose to say “I keep a table as a pet”.

### 3.7.1. Inclusion (identity)

Here we will look at three cases possible – hyponymy (--- is a ---) and meronymy (--- a part of sth); and synonyms (and their variety).

#### 1) Hyponymy

Examples:

- Rose: flower, sun: star, earth: planet, pigeon: bird, gold: metal, birch: tree

In these pairs of words the one giving the more specified info is a hyponym. This case is easy to explain by – a rose is a flower, a pigeon is a bird, etc. But not in all cases we can say that this rule works. There are many words which meanings (or concepts, which may be differently interpreted according to our personal experiences) are not necessarily a hyponym of something related to that word. E.g.:

A horse is a domestic animal

It is a concept that will come to majority of our minds, but then again there are wild horses, so it is not entirely true to say that all horses are domestic animals, so that concludes into that a horse is not a hyponym of domestic animals.

#### 2) Meronymy

Examples:

- Leaf: tree, bulb: lamp, wheel: car

Here also works a rule of coherent relations. Here very good example is from **Cruse**; he writes:

“Hand is the holonym of finger, but it is at the same time a meronym of arm, which in turn is a meronym of body. The chain relations stop at body, which may be termed the global homonym.”

Meronymy can be graphically put as “--- is a part of \*\*\*” or “a \*\*\* has an ----” .

To understand both cases, which are both inclusions, though of a different type, we can easily give examples:

- A rose is not a part of a flower. (hyponymy)
- A leaf is not a kind of tree. (meronymy)

Mind that not all objects consists of parts, which automatically can be put under one of previously mentioned inclusion types. E.g. a broken pot will break into pieces not parts. Those called parts usually have a function in a whole, or they are separated form a whole by something (or both). Like a wheel is attached to a car by use of certain parts, and also wheels help to control a car in certain direction.

Objects also differ in the necessity of their parts (Cruse, 2002). As some objects can exist without some parts and can still be called in their full and first meaning, then others missing some parts would not be usable anymore and could not be called in the proper form as their function or existence as that conceptual object could no longer be true.

A birch without leaves would still be a birch (e.g. during the winter).

A car without wheels would still be a car but not well-formed as it cannot satisfy its purpose to be driven.

### 3) Synonymy

Merriam-Webster online dictionary (online, accessed September, 2010) provides us with such definition:

1

: one of two or more words or expressions of the same language that have the same or nearly the same meaning in some or all senses

2

: a word or phrase that by association is held to embody something (as a concept or quality) <a tyrant whose name has become a synonym for oppression>

As there are words that we consider synonyms but in context we clearly see that not both can be used, we have to look more specific at different synonym groups and find out how close the meanings of different synonyms really are.

Synonyms can be subdivided into three groups: absolute synonyms, propositional synonyms, and near synonyms.

1) Absolute and propositional synonymy

This case is hard to find, as there is no reason for any language to have two or more words with identical meaning, and this group asks the meaning to be identical – absolute synonym means that two words can be used in the same context and both versions should sound normal to a reader.

Here is an example of seemingly absolute synonyms:

- Again/once more

But in text it reveals that one seems more normal than the other:

- I will see you again soon. (more normal)
- I will see you once more soon.

Here is one more example of silly/stupid:

- Oh, you got me a present? – It is just silly something. (more normal)
- Oh, you got me a present? – It is just stupid something.

It may be concluded that there is no absolute synonyms in natural languages. Maybe they can exist in different dialects or varieties of languages (British and American English; Latvian language and the Latgalian accent). Some examples:

- Nomizo kartupeļus un tad tos noskalo. (Peel potatoes and then rinse them).

Latvian:

- Nomizo bulbas un tad tās noskalo. Latgalian

Here those two words are absolute synonyms, because they both mean potatoes. This word even changes the gender in different accent. The other problem is that in most of the Latgalian sentences other words would sound different, too, so it again may be questionable – if it is absolute synonym or already the case of translating different language. And here also we have to mind, that the first version would still sound more normal because it is used in Latvian sentence. So again they fail to be absolute synonyms.

That is why in this case we more likely could speak of propositional synonymy than absolute. Because two sentences:

- I want to hear it again.
- I want to hear it once more.

Both are true. So here shows the propositional synonymy, that two words are same in the meaning, but suitable for different contexts.

In general there are not enough of both – absolute and propositional synonyms – so even a decent dictionary of synonyms could not be formed, and thus here we have to look at the third group of synonyms.

## 2) Near synonymy

Those are synonyms which any layperson would recognize when asked for synonyms. Here are some examples.

- rinse, wash out, gargle, lap, launder, lave
- again, encore, freshly, newly, once more
- hit, slap, paste, pat, plunk, punch, rap
- crazy, moonstruck, nuts, idiotic, insane, kooky, lunatic, mad
- car, auto, automobile, bucket, buggy, bus, hatchback

So these are words, which are very similar in meaning, but differ in usage. Some examples of how these words work in sentences. Though they are synonyms, here we can emphasize their difference:

- He didn't hit me hard, he just slapped my cheek.
- She is not totally nuts, just a bit kooky.

And again we can see that some words go together normally and some don't. Here is the normal version:

- I have a car, a hatchback.

Here is the version which is not acceptable, because the difference is too big, and the sentence is not true anymore:

- I have a car, a bus.

And here is an example of two too similar words used, so it also makes no sense to say this:

- I have a car, an automobile.

### **3.7.2. Exclusions (opposition)**

There are following types of exclusions: incompatibility and co-meronymy, and opposites.

#### 1) Incompatibility.

Here it is essential that these relations are based on opposites, that if something is this, it cannot be that. But also it is important, that it can't be both in the same time. Examples of incompatibility:

- Birch and oak
- House and church
- Frog and snake

Here we conclude that if something is a frog, it can't be a snake. But it wouldn't work with boyfriend and boss, because a boyfriend can also be a boss.

## 2) Co-meronymy

In this case we talk about co-meronyms of one holonym. Example:

- Branch, leaves, trunk of a tree
- Wings, engines, wheels of a plane

## 3) Opposites

Words in this group share a quality that they go together naturally. Even little children do not need an explanation, it is very easy to grasp why they form pairs.

Here we can distinguish several subgroups: complementaries, antonyms, directional opposites and converses.

### a) Complementaries

This is a "true-false" case. These words go together by a logic that if something is not that, than it is this. Example:

- Doors are shut. (Which automatically means: Doors are not open.)

A little test can be done to distinguish from other groups. If we take previously mentioned birch and oak we can see that:

- This is not an oak. (Does not automatically mean that: This is a birch.)

Also attention must be paid to cases like:

- This planet is moving. (And it does not mean that others are stationary, because this concept simply doesn't include this information.)

### b) Antonyms

This word is often used to talk about the opposites in general (Cruse, 2002). Antonyms basically are gradable adjectives. Which means they describe temperature, length, weight or speed in a way that there is a neutral place between them, so one of words in this pair would describe the situation above average (the neutral point), but the other – below average.

Examples:

- Hot – cold
- Good – bad
- Clean – dirty

The neutral place between them Cruse (2002) describes as:

- Neither good nor bad
- Neither clean nor dirty

He also mentions a case when, e.g., if something is hotter than something it already has to be hot (because it sounds odd if we say – something is cold, but hotter than...). Different it is with long. For something to be longer than something else doesn't automatically include that it has to be long at all. Thus hotter is known as a committed comparative, but longer as impartial.

Here we can talk about three classes of committedness of antonyms: polar, overlapping and equipollent.

Polar antonyms are basically those, which both in a pair are impartial:

- This material is thick, but it is thinner than that one.
- This river is narrow, but it is wider than the other one we crossed.

In overlapping antonym pair one of the words is committed comparative, the other – impartial:

- Nick is rude, but more polite than John.
- John is polite, but ruder than Anna. (odd)

With overlapping antonyms it is important to notice that they possess a feature called inherentness. That means that using these opposites we usually talk about the things of a same degree, like when we say something is bad, it can always worse, rarely better. It would be an odd question to ask:

- I heard your car is damaged, how good the damage is?

The third case (Equipollent) is when both words in a pair are committed in the comparative:

- I am happy, but sadder than you.
- I am sad, but happier than Inga.

When we talk about antonyms there is also a possibility of degree questions – how and what (how long; what is the length of...?).

c) Now to the case of directional opposites, which also have two types:

- Static directions, like east: west, up: down; and reversives (dynamic directional opposites), like advance: retreat, enter: leave, lengthen: shorten. As Cruse (2002, pp.198), describes this case: “the nature of the process of change is not specified by the reversive verbs, only the initial and final states”.
- Converses: above: below, buy: sell.

Using these words we can always say – if it is not one then it is the other: if one buys something, then the other sells it; if something is above something, than it automatically means that the second something is below the first. For this reason sometimes converses are considered to be a variety of synonym.

When we talk about sense relations we talk about which words go together and which do not, and why. There are three different possibility of a result when putting words together: that the result is normal, or there is a semantic clash, or the result is pleonastic (the use of more words than are required, needlessly wordy or redundant (exceeding what is natural)). Also the use of the register may clash.

For the latter the example might be:

The prime minister invited his good old mate to a reception. (Register clash)

The prime minister invited his life-long friend to a reception.

Here also note that there are certain words that clash, not all, and not necessarily by-standing ones. It is clear that good do not clash with old or mate, but as we talk about the certain register we pay our attention to prime minister and a formal venue and then to mate.

Now let us turn to the cases mentioned before. There are some words that require to be followed with certain types of words. Here we talk about the semantic clash. Like – to plant something it has to be a plant. One cannot plant a fridge, for instance. Normal case would be:

I plant a flower.

Than an example of pleonastic combination of words would be – a male sister.

For a word pair to be normal they have to satisfy two conditions. It is always that one of the words is selector and the other selectee. They each have to satisfy one another, in a way of semantic conditions. A selector requires those conditions and a selectee must satisfy them, then the word combination is normal. In an adjective – noun pair, the adjective is the selector and the noun the selectee.

A sister – there is no condition that includes all that a sister could be (younger, smart, bold, tall, step-sister.)

A young – here we can already specify (when used about living being, out of the expression context (like – the night is still young) specifies - till certain age (depends on the specie), maybe less experience, probably better looking, etc.)

In the case of a male sister a further explanation is required, as there is no clash between words, but it still makes no sense. A female sister would not count as an explanation as a sister

concept already includes the fact that it is a female. A lesbian sister on the other hand could work, because though lesbian includes that it is a female too, it still also includes other important facts that adds new knowledge about the sister.

### **3.8. Change of the meaning and meaning extension**

It is very common for a word to change meaning or extend it. There are several reasons for that. To find out how and why word changes we have to study their etymology –what is the origin of the word, and how it came into being. The meaning can be extended if the concept it describes also changes, or there are new similar concepts that can be described with the same word. If meaning changes it may be because a concept it describes becomes invalid, or some new concepts are somehow more precise for that word.

If one word has several meanings, and they are not connected, it also, most probably, it happened due to historical development, when one word came into language as a borrowing, and other already derived from some word or root in that same language; which is called homonymy in linguistics.

#### **3.8.1. Different types of readings**

When reading a text we come across a word with more than one meaning, but only of them would fit in the context, our brain (if we are competent readers) automatically picks the necessary meaning. This is called established reading.

- I read a book in a hotel.
- I will book a hotel for the next week.

Here we have no doubt that we understood the word “book” correctly.

But there are also cases when we understand the word in its one given meaning, but still it makes no sense when out of context. It may be said about the cases when an author of the text/speech mentions earlier that we will call something differently (power of attorney – further in the text “document”). So even if the meaning may be different or does not include or specify this case, all who knows this one condition for this one case will understand it. It may also be said about the slang, that word is used differently, and means something else out of the context, but among the members of the certain group it would still be understood. This is called nonce reading.

There also exist literal and non-literal readings (Cruse, 2002, pp.198). These two are tricky to tell apart even for native speakers. Because we have to bear in mind that not always the most frequently used in the text is the literal meaning of the word.

### **3.8.2. The strategies for the reading derivations**

One of them is a metaphor. Metaphor is an analogy which passes the understanding of one concept to another. “His face was a blue moon pocked with craters”.

The other strategy is metonymy. This is a case when we do not pass the meaning on different concept, but include it within the one word (combination of words). Very commonly used ones are already hard to recognize, as we are so used to them as they would be the literal part of speech. “On the way downtown I stopped at a bar and had a couple of double Scotches”. (Raymond Chandler, *The Big Sleep*, 1939). Here the whisky is replaced by Scotch, but it is so widely used, that we understand the meaning and won't even think about it twice. In this manner many concepts are replaced with different one, they become closely associated with that new word. "He writes a fine hand".

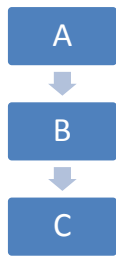
The third case is specialization and generalization. Specialization is a reduction of the long explanation into one or fewer words. Like - demagogue for a popular leader, dance for to move rhythmically to music, using prescribed or improvised steps and gestures. Generalization is the opposite, when one word, originally meaning only that one something is used to describe a larger, wider group of other words. Like in Latvian it would be “beka” (boletus), used for all types of it, though meaning just one lipīgā (parastā) beka.

## **3.9. Word fields and families**

Here we will look at the grouping of words which are considered to fit in the same group or are under one or another word group. Also such thing as word hierarchy exists, as we understood from previously discussed (concepts named by one word and vice versa).

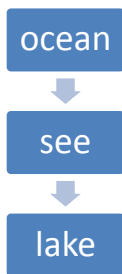
Lexical hierarchies can be of two types – non-branching and branching. Here are examples of both:

*Table 3.1. Non-branching hierarchy*

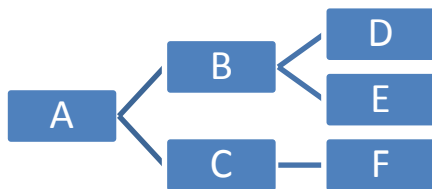


Here A, B and C are word meanings and the bullets joining them are sense relations. An example could be –

*Table 3.2. Non-branching hierarchy*

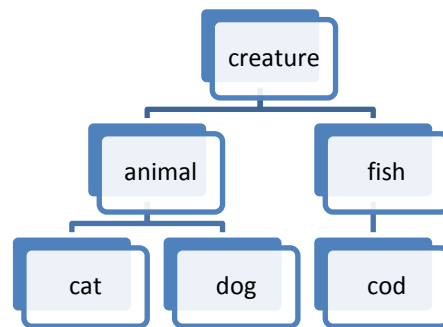


*Table 3.3. Branching hierarchy*



Here a partial example of branching hierarchy by Cruse (2002) will also be presented and commented-

Table 3.4. Branching hierarchy



As we understand the branches are much wider, like under the creature there are also bird and insect, and under the dog there are species, like spaniel. Under this construction he talks about that to non-British speakers' of English creature and animal seems like a synonym, but they are not and by definition wild animals include mammals, amphibians and reptiles, but not birds, fish and insects.

In Latvian also it is sometimes confused that animal (*dzīvnieks*) also includes birds. Latvian speaker would say that his pet (in Latvian house animal – *mājdzīvnieks*) is, e.g., a bird, though birds are different subgroup of creatures.

In branching hierarchy one word is always a basic level. In creature – fish- cod case it would be the fish. Creature is too general and includes many branches under it, and cod is too specific, so, unless one is very advanced in wildlife sciences or is expecting certain something, he would more likely say:

- Look, fish!

Than:

- Look, cod!

But in more complex structures like creature- animal- cat – Siam cat, the basic level is the cat. Because it is more likely that someone when asked “Do you have a pet?” would answer:

- Yes, I have a cat.

Of course, if it is a Siam cat, he can make a distinction “yes I have a Siam cat”. But most probably when mentioning it for the first time it would still be just “cat”. So basically it will always be the word which is used to describe that necessary concept we talk about the most.

### 3.9.1. Word families

Word families build from a root word when adding one or more derivational affixes. Here is an example:

- Bug    buggy   bugger
- Drive   driver   screwdriver

Native speakers know in their own language which derivations can be made and which ones not.

Larger word groups are called layers of vocabulary. Those are groups of words used in specific situations, like certain terminology when speaking, e.g., about shipping and sea; doctors as well use their vocabulary. Also different registers have different vocabulary (formal and informal. Mentioned in 3.7. Pragmatic sense relations.).

### 3.9.2. A person's individual lexicon

Every person's mental lexicon differs, though scientists claim that an adult speaker knows around 150 000 – 250 000 words (Cruse, 2002). We each use different words, so to say – we have created a personal lexicon of, for one or another reason, our favorite words. Though they differ, we somehow manage to understand each other, and this is called by people working in the linguistic field – an adequate degree of overlap between individual lexicons.

There are many communities using one language (or its variety). Dictionaries do not represent the individual's vocabulary, but it must cover a common part of the language used by different speakers and communities.

By the look at many aspects of what language contains and studied closer the very important part – words we now can conclude that a sound, a sound with the meaning, is with what the language starts, so we explored many aspects of how the word is built, how meaning derives and how words are connected, not only by grammatical rules, but also in our minds.

That is also a very interesting part of the language, but very new in sciences (so many things are assumptions more than proved knowledge yet), how our mind works. Because all this we just studied are invented in our minds.

As now we have the very basic knowledge and understanding of words, this chapter will lead us further to study word formation.

In this chapter we looked through what aspects comes with the concept “word”. It showed essential parts for this paper, as it more specifically explained several characteristics of modern language. With previously mentioned historical evidence it led us to how modern language works, and what we have to know to talk about the lexicon.

Now when it is clear, and certain patterns of how words are formed and used have been explained, the next chapter will introduce word derivation, and formation of new words.

## 4. WORD FORMATION

Derivation is the process when from one word is created another, by the use of prefixes and suffixes. The new word may be of different word class and/or gender. The main reason for derivation is to create new words.

There are certain rules for derivation – words that can be derived and changed, and words that cannot be. Or words that can be derived, but because of certain rules (or historical reason) can be derived only with some of the prefixes/ affixes.

Like with the word – do, one can also un-do. But with the verb – to drill, this prefix is not used. The reason can be even logically seen, if we drill a whole into something, it is impossible to un-drill it.

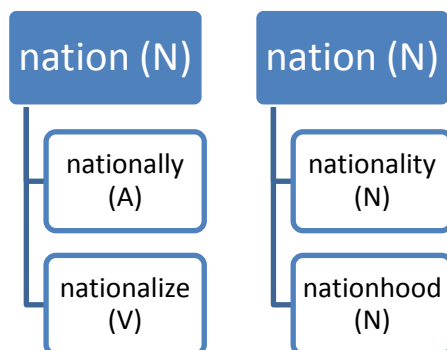
This chapter will be about some important rules of derivation, and it will introduce us with important information before the next chapter, where we will have a look at creation, history and use of some certain words, and how they came into language (what makes us to accept a new word in the language?).

This chapter will concentrate on affixation, as this is the most important of all to this paper.

### 4.1. Lexical classes

Words are divided into two lexical classes – open class and closed class. Words (nouns, adjectives and verbs) from which it is possible to derive new words belong to open class. Those words that help in this process, or cannot be derived (determiners, conjunctions, prepositions and others) belong to closed class.

*Table. 4.1. Examples of word derivation and how they change (or do not change) the word class.*



Here, on the left side we can see how a word can be derived and changes its words class, but on the right derivations are of the same word class as the basic form.

In English adverb also is in the open class. They can be derived from adjectives by using suffix –ly. The bases of adverbs are nouns:

- (-wise) work-wise
- (-wide) nation-wide

There are different processes of derivation, such as: nominalization, verbalization, adjectivalization and adverbializations. These processes are category-determining as they change the word class of the first form (verbalization is when we derive a verb from a word of another word class).

In English (and all other Germanic languages) all those suffixes that changes the category of the word is called category-determining. Suffixes also are category determining if they does not change the category of the basic form to which they are attached in case when they change gender of it.

## **4.2. The head**

Here the head will be used in different way than mentioned before. As in syntax it is the upper nominal of hierarchy, here head (as in right-headed) shows the linear construction.

In linguistics the word which is the basic word of the phrase and forms its category is called the head. Like in “the blue bell” – a Noun phrase (NP), “the bell” being its head and “blue” – an adjective as a modifier. “The knife stained with blood” is an Adjective phrase (AP), “stained with blood” being its head.

In morphology there exists Right-hand Head rule (RHR). This means that the complex of words is defined by the word on the right. This rule is for both – derived words and compounds. For derived words it will be the suffix that is on the right, and is the head, so they will determine the category of the newly created word.

In English it is the word that stands on the right that determines the category of the phrase, like “the coffee machine” is a kind of a machine, not a kind of a coffee. Also suffixes determine the category of derivations.

This rule is not applicable to all languages, as there are languages where the left-headed word (like in Vietnamese) or prefixes determines the category. There are also languages with

neutral suffixes. In English category-neutral prefixes are un- and non-, they derive the same category of words:

- Comfortable - uncomfortable (A-A)
- Sense – nonsense (N-N)

Booij (2005) explains that RHR has a historical explanation. He says that “the English suffix – dom (as in kingdom) with the meaning “domain” derives from the Old English word dom “fate, destiny” [...], words that once occurred in the head position of compounds. Thus such suffixes could start functioning as morphological heads”.

But there are also prefixes that originally come from non-head position (left). Therefore they cannot function as heads. Those are prefixes like over and out:

- Overdo, outlive

Usually category neutral prefixes and suffixes are those which are not lexemes themselves. Those are previously mentioned un- and non-.

If there are more than one prefix attached to the word it is not always true that the first one (with which the word begins) is the dominant one, because it may be that only because of the following prefix it can be attached to that combination, and that first one could not be attached to the base word itself. Here is an example of a word with two prefixes; though in this case there the variations exist (unclosed, disclosed also are existing words):

- Undisclosed (prefix un-, prefix dis-, root –closed)

Affix may also be used to derive an adjective from a noun. Relations between them are quite indefinite, as we can guess where the relation is, but there is no further rule to explain it.

- Academy – academic writing

From a noun “academy” we get the Noun Phrase “academic writing”. Here we understand that the relation is that this type of writing comes from academic field, so someone from academy is involved.

The same would be in the noun phrase “musical instrument”, when we understand that the instrument (when played) creates music.

The same thing is applied to derivations from nouns to verbs. Booij gives a very good example of hospital – hospitalize.

But here also exists one more case when a noun can serve as a verb without any change in its stem. Like “milk” can be both, the actual liquid we extract, N, or “to milk” the process of extracting the milk from.

Derivations are not used only change the category of the word, but also to get new words from the same category, with sub-category. There are languages with category neutral suffixes, like Italian.

In English there are also many affixes that doesn't change the word completely, but weakens, reverse or intensify its meaning. Some examples:

- Weakening – (using suffix –ish) bluish, boyish
- Negation or reversal – (using dis-, in-, un-, non-) dismissed, undo
- Intensification (using –er) stronger, colder

Affix does not always require a specific syntactic category of the word it is added to. Even category-changing affixes may be added to different word categories.

Though there are some that requires a specific category, like in Latvian the prefix uz- can be added to a verb.

- Uzvilkt, uzmet (to put on, to throw on)
- The same is with the prefix iz-.
- Izsmiet (to laugh at)

Though there are always exceptions, like in both cases the participles can be derived

- Izceļošs (emphasizing), simultaneously answers two questions, plus combines the verb and the adjective.

To sum up, there are many different types of word formation and derivation. Affixation is very popular, and it is govern by certain rules. But also there are cases when a=only advanced language user can differentiate when to use which suffix and with which words they go together, and also to them the change of the word category would not seem that important,; though when studying language more carefully it is quite common that it happens.

The frequency of the use of one or another affix is also a question of productivity. Those used by the rule only to some of the words or word classes are much less productive than those that can be used in more variation. When we say that a certain morphological pattern is productive we mean that it can be extended to new cases, new morphemes can be created, new words with new meanings and different word classes can be derived.

Besides derivation words can be also created or changed into different morphemes by compounding, clipping etc.

By derivation we specifically mean affixation and conversion. Derivation is productive, and as affixes have different etymology it is very complex and interesting to study.

## 5. FORMING OF NEW WORDS IN LANGUAGE

In many big languages derivation is the most productive way of forming new words. As world changes throughout the time, language also changes; the necessity for new words arises. We do not know how people made up the first words, or how they decided to name things later on. The assumption is, as mentioned in the first chapter, that very first words were somehow connected to natural sounds – of pain or happiness, or emotions. As to Latvian language, in the middle of 19<sup>th</sup> century there were linguists working specifically for this purpose – they made up new words. It may take several years until they are “accepted” among speakers. i.e. they start “living” in language. By now most of those words have taken their place in language and are not considered to be new words anymore; but it also may happen that speakers do not use the words and it falls out of the lexicon and is forgotten, and then there is a need for a different word. It works somehow similarly as artificial languages. If it is built on some pattern which our brain accepts to be close to natural, which means it is easy to understand and remember, the word will survive.

However, to create a new word is very difficult and not very efficient as we cannot predict how speakers will react to it. Nowadays there are more popular ways for this process; when something new is invented a group of people come together to name the thing. They suggest several names and then there are many researches carried out of what society think of one or another word, is there any association (positive/negative) with the new word. After they compile the results and see which of the words is the most suitable. Also it is very popular, especially for the words of new technologies, as they develop very fast, to take over the word from one language and adjust (spelling, pronunciation) it to another (telephone – telefons), as the new concept is not highly important just for one nation to name it in their own words, like computer, telephone or television.

Another popular way is derivation. The most popular is affixation, as many affixes and prefixes have meaning, so it is easy to e.g. create an opposite to an existing word, or derive an adjective from noun, and do on. Here are some examples:

Use of prefixes with meanings:

-over. Overcome, overdo

-out. Outlive, outrages

-re. Research, react

Use of affixes to derive different words class:

-ly. Brightly, brilliantly

It is also popular in Latvian, to derive nouns from verbs:

-tājs. Skalotājs

-nieks. Atpūtnieks

For example “out” is an adverb, and it is not very popular in English for an adverb to become prefix; though it did and with several meanings, like “exceeding” in outperform, or “external, away from” in outboard. And “over”, though with clear meaning as a separate word, as a suffix have also different meanings, like “excessively, completely” in overconfident; “upper, over, above” as in overcoat, overcast.

There are some other prefixes with meanings. Prefix a- itself has 3 different meanings (online, 1997-2011). It can be a denial (without or not) as in atheist; it can be directional (to, towards) as in aside; or it can be as “of something”, as in anew.

New words can also be made up by combining two other words, or simply giving a new meaning to an existing word (the latter one known as a sort slang, but becoming highly popular; those words are considered informal, though everyone know what they mean; at some point different forms of slang may become a stable parts in language (online, 2000, 2005). There are several books on this topic like “Explaining Language Change: An Evolutionary Approach” by Croft (2000).

For newly created words there are even dictionaries, like “Brave New Words: A Language Lover’s Guide to the 21st Century” (2006); and websites, like [www.learn-english-today.com](http://www.learn-english-today.com). They are called hybrid words, but some of them are very common in use (see Appendix 2). Here are some interesting examples of newly created words in English:

-blook (noun). Combination of words book and blog (online journal); it basically is blog but printed out and compiled in a book. (Brave New Words, 2006).

-daycation (noun). A trip or short vacation which lasts only one day - daycationers do not stay away overnight. (Online, accessed December, 2010).

It is sort of normal that we will run out of creating new words at some point, because combinations of sounds are not unlimited, and then also we have to take in consideration that some combinations are not suitable for different languages, so it also reduces the number.

Also many new concepts become more popular to talk about. If for a while we needed words for actions (do, un-do), or new things/gadgets (computer), now more and more unusual, uncommon, and ideological concepts arise, things that a century ago would be considered taboo,

or maybe simply did not exist because it lacked certain precautions to do so (like, now very commonly used metro-sexual, to describe a modern man).

We have to realize that new words are created all the time. It is simply how language lives in us, it has the inner mechanism to produce an infinite number of words; all we have to do is to create new concepts to give names to. The other thing is whether we like the new words, and do we accept them or consider them as language polluters. Many would say that Latvian now is full of borrowings and slang, but one has to understand that living language must change, and that it definitely will.

As derivation being very productive way to create new words, we have to assume that there must be many words in use that we do not know about, or haven't admitted them being a part of particular language yet. Prefixes are used to change or modify the meaning of the word.

Here the empirical research will be carried out, and the aim is to find new words. The best medium where to find them is the World Wide Web. Some random prefixes will be chosen from the list (see Appendix 1), and examples will be given.

As first we will take a look at "out", "over" and "after", as the first two are very productive (if printed dictionary is the source) but the letter one is not.

If we open Oxford Advanced Learner's Dictionary of Current English (1987) there is one separate entry for a word "out" and ninety more for words with the prefix "out"; in the same dictionary there are two entries for "over" and ninety-seven for words with prefix "over". For "after" there are four main entries, and only two derivations with prefix "after".

There might be two possibilities: 1) "out" and "over" are extremely productive and speakers are using them to create new words, or 2) "after" is so rare, that there are still more possibilities to create something new.

Now with help of the Internet, as it is source of what is actually out there, and not only what state has approved by law, we will try to search for new words and will search for their frequency of use, and with the help of the dictionary will try to seek their place in the lexicon (are they used frequently enough, or are they very new). The curious part will be if these words will stay in language lexicon, but that is for further investigation, and only time will show it.

To begin with there is a derivation which already gained its place in the lexicon and dictionary, and we can see it studying different dictionaries of different times.

In 1987' dictionary the collocation out-of-date is marked to be a slang expression for something not modern, not in fashion. Then it appears in Oxford Paperback Thesaurus (2006), but already combined as one word – outdated, with further explanation – old fashioned.

Now we can look up something totally new. Among those very frequently used (with “out”) are such widely known words as – outcast, outdo, outdoors, outcry, outline, outlook, outnumber, and outrageous. When we seek for new words with “out” there is one that takes our attention, which shows how change of lifestyle and technologies changes the lexicon; this word is “Outernet” - n. Online networks that are not part of the Internet. First noticed in InfoWorld, September 21, 1992. Now in Google.com it gives about 95 000 hits.

Now we seek for words derived with “over”. There is a machine, invented in 1881, for stitch sews over the edge of one or two pieces of cloth for edging, hemming or seaming, named “overlock”. Though it was invented quite long ago, and now searching the Internet all hits are about this machine (and not just explanation from Wikipedia, there are companies proposing good deals of buying or fixing this machine), so the thing itself is in frequent use. The word is even adjusted to Latvian – overloks. But when we seek the dictionary for this word (Oxford Advanced Learner’s dictionary, 2000; and English – Latvian Dictionary, Institute of Economic Relations, 1997) it is not there. It may be that it is used for very specific purpose so that it is not included in general dictionary (though Oxford’s is rather big data base for a printed dictionary), or because of that same reasons the words itself is not used frequent enough.

Another word with “over” is “overclock” – according to the Internet, more frequently, the process of “overclocking”. It means “the process of running a computer component at a higher clock rate (more clock cycles per second) than it was designed for or was specified by the manufacturer, usually practiced by enthusiasts seeking an increase in the performance of their computers” (online, 2001). This word also is not included in dictionary. It is more frequent used (according to hits in Google.com) than “overlock”, though also may be considered too specific for a certain field to include in printed dictionary.

While those very few words with “after” as a prefix are used very frequent (afternoon, afterwards), there are new words derived. One of them, just now becoming popular is “aftercrimes” - n. A pattern of crimes that occurs in the wake of an initial crime (online, December, 2010).

A word “aftermath” - a consequence, especially of a disaster or misfortune, is not in dictionary in 1987, but it is in 2009; this is an example of the word that took its place in language lexicon.

“Afterparty” (also after-party, after party) seems very widely know word, and still it is considered to be new, and is not included in dictionaries. Basically everybody knows that it means to continue party in an agreed venue, in the early hours of the morning, relax, chat and

consolidate any promising relationships that begun during the main party. “Brave New Words” (2006, pp.8) continues with: “If you’re lucky you might even get breakfast...”.

Here we will continue with prefixes with “a”, next being “anti” – opposite, against. Widely known words are such as anti-social, antibacterial. New word with this prefix is Asbo (also ASBO), which stands for Anti-social behaviour order. This is an interesting case, because it seems that this combination has been so frequently used that even an acronym has been made and speakers seem to recognize it. This word is used when speaking of “a civil order intended to deal with those individuals who persistently make life unpleasant for other” (Brave New Words, 2006). Though anti-social is in the lexicon existing word, this acronym still makes the usage very uncommon and new.

Web page [www.morewords.com](http://www.morewords.com) (online, 2010) contains 787 words that starts with the prefix “anti”. Only ten of them are included in Oxfords Collocations Dictionary (2009) and thirty-three in Oxford Advanced Learner’s Dictionary of Current English (1987). New derivations are of kinds, starting with antiabortion, antiacademic, antiaggression, antialien (there is even an agency called “Antialien Agency”) and anti-air (firstly used already in 1915, shortening for otherwise known anti-aircraft); and till such words as anti-weed (a modern problem of people smoking a drug, weed) and antiurban.

Now we take the next prefix – “contra”, from Latin, meaning contrary, in opposition. The same webpage contains only 110 words with this prefix, and all of them, even if not in the dictionary, are seen before. Example, anyone knows the meaning and have heard such words as – contraband, contraceptive, contraction. This prefix seems semi-productive and newly created words are easily understandable.

By adding the prefix “ex” basically any concept that is no longer valid, or in use, or anyhow differently previous, even dead, can be described. This is highly productive. A good example is when comedians from Monty Python (1969) referred to a dead parrot as an ex-parrot (famous “Pet Shop Sketch”).

Let us take a look at the prefix “semi”, meaning – a half of, forming bisection, to some extent, partly. With this prefix around 235 words can be found on the Internet. Most of them also known and used – semicolon, semisweet, semifinal and others. But also some terminologies are created for specific use, such as semidwarf (a kind of wheat). However, this prefix also clearly defines what change in the meaning will be for the new word. As even one do not know the semidwarf, it is clear from the prefix, and also described in definitions, that this type wheat is undersized.

Here we can conclude that new words are constantly developed and used by speakers, but for one or another reason they are not in dictionaries yet (some of them may be in the dictionaries of terminology). All we need is new thoughts; then we start to speak new words, to show these new concepts, or to show them in a different light. Our mind works in an amazing way; we just have to allow it the process of creation.

## Conclusions

Cognitive sciences and linguistics are considered to be very new sciences. Because of that it is not always understandable for a layperson that language can be investigated in many different scientific aspects. Many fields in research about language, ways of communication, and how our mind works are still undiscovered, and those already explored are mostly guesses.

Though very many great discoveries have been made over the past century; anthropologists and archaeologists suggesting their theories and findings together with linguists and cognitive scientists had come up with many great conclusions that changed our view to the process of evolution and human languages. Many of those researches include Darwin's theory that our very first and very far ancestors are primates (chimpanzees). There with new technologies and neurobiological and linguistic research many great theses have born; among them being popular ideas that animals also communicate (that their call system is more sophisticated than we thought) and that there was a point in history when for one or another reason humans started to use very complex language (with sounds of modern language).

Globalization is very dangerous for language, though also very logical and unstoppable process. As the world we live in becomes more complex, and the things we use or talk about more sophisticated and modern, also the necessity to communicate more global arises, thus it is very natural that we seek for a language which is spoken by large numbers and is easily learned by non-native speakers of it. In Europe those are English, Russian, French, German, in Americas – English, Spanish, French; also Chinese becomes very popular.

The process of globalization began very natural and because there was a need, so it cannot be broken artificially. World needs to communicate. However we also cannot forget our history and origins, and every language has its story – how it arose and why certain group of people speaks their own language. Also language carries enormous amount of values, encoded in spoken and written forms, so if it turns out that globalization will continue, we at least have to find out what it is we are losing by losing a language and somehow save it. These are things like names for concepts, things, animals, places, medical recipes, food recipes, arts (songs, poetry) and many others; some of them just of cultural value, and some of them with a high value for the mankind in general.

Documentation of endangered languages saves this information. It is interesting to study for anyone, but also these documentations may be of a great value for any further investigation about how language developed throughout the time, starting back from the very first speakers of modern language, or even before that. We can never know which of the pieces we are losing would be essential to put the puzzle together.

Moving forward to more specific parts of language it can be concluded that all languages have many characteristics in common. First of them, very basic but so essential – a word. There are so many aspects to study a word; starting from just looking at it – word class, meaning, ambiguity; till very complex systems of where each word belongs in individual's lexicon (how we structure the word network in our minds to remember them and use correctly) and the lexicon in general (word groups and families, polysemy and homonymy).

Only when the whole picture is understood very specific field can be studied. We cannot talk about new word formation if it is not clear how language works. It is essential to know all aspects that language includes; to understand that it doesn't mean verbal or written communication only, that it also reflects cultural and historical aspects of any nation living in the world, as well as emphasizes all the aspects that are common or, totally opposite, distinguishes every human from one another.

Derivations are very productive and common forms for new word formation. As numbers of combinations of sounds are not eternal, and also artificially made up words are not always surviving in language, it is very common to add affixes to an existing root or simply combine two already existing words.

To sum up, language is a very unique phenomenon for the mankind. It is very complex, but also very natural and we are possessed by ability to learn it easily (at least mother tongue). There are many aspects why scientists say it so – we are genetically predisposed, our organs of speech are accordingly structured and our brain works in amazingly sophisticated way.

## Theses

1. One reason of why languages change is because language users develop new concepts and look for new ways how to express them.

2. Native speakers have an intuitive sense of language, which stems from the processes in the human cognitive system.

3. Derivation is the most efficient form of word formation of new words; it is highly productive and perhaps the most efficient way of language acquiring new words for the lexicon.

4. The process of globalization endangers languages spoken by smaller nations. However, globalisation also changes big languages as there is influence from non-native speakers.

5. There is a certain overlap in individuals' lexicons, i.e. people speak using diverse vocabulary but there is a core lexicon that every speaker of the respective language understands. This makes communication possible.

6. It is not known whether the first language arose in one specific location or in many places simultaneously. However, it is known that language is a unique phenomenon for the mankind.

7. Our vocal tract is different from other mammals'. Is it not clear if this is the cause or a consequence of the human ability to speak.

8. For language to survive a number of factors are essential – one of them being – creating a balance between language protection and the freedom to create and/or borrow new words.

9. It is typical for a word to be ambiguous and polysemantic. However, in a specific context meaning gets disambiguated. Therefore, ambiguity is often an issue of trying to define meaning of a word outside its natural context.

10. Language has the inner mechanism to produce an infinite number of words; all we need are new thoughts and ideas.

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## Appendix 1

### Table of English Prefixes

This is Appendix1, table of Prefixes in English; taken from  
<http://www.englishclub.com/vocabulary/prefixes.htm>

Prefix		Meaning	Examples
a-	<i>also an-</i>	not, without	atheist, anaemic
a-		to, towards	aside, aback
		in the process of, in a particular state	a-hunting, aglow
a-		of	anew
		completely	abashed
ab-	<i>also abs-</i>	away, from	abdicate, abstract
ad-	<i>also a-, ac-, af-, ag- al-, an-, ap-, at- as-, at-</i>	movement to, change into, addition or increase	advance, adulterate, adjunct, ascend, affiliate, affirm, aggravate, alleviate, annotate, apprehend, arrive, assemble, attend
ante-		before, preceding	antecedent, ante-room
anti-	<i>also ant-</i>	opposing, against, the opposite	anti-aircraft, antibiotic, anticlimax, Antarctic
be-		all over, all around	bespatter, beset
		completely	bewitch, bemuse
		having, covered with	bejewelled
		affect with (added to nouns)	befog

		cause to be (added to adjectives)	becalm
com-	<i>also</i> co-, col-, con-, cor-	with, jointly, completely	combat, codriver, collude, confide, corrode
contra-		against, opposite	contraceptive
counter-		opposition, opposite direction	counter-attack, counteract
de-		down, away	descend, despair, depend, deduct
		completely	denude, denigrate
		removal, reversal	de-ice, decamp
dia-	<i>also</i> di-	through, across	diagonal
dis-	<i>also</i> di-	negation, removal, expulsion	disadvantage, dismount, disbud, disbar
en-	<i>also</i> em-	put into or on	engulf, enmesh
		bring into the condition of	enlighten, embitter
		intensification	entangle, enrage
ex-	<i>also</i> e-, ef-	out	exit, exclude, expand
		upward	exalt, extol
		completely	excruciate, exasperate
		previous	ex-wife
extra-		outside, beyond	extracurricular
hemi-		half	hemisphere
hyper-		beyond, more than, more than normal	hypersonic, hyperactive
hypo-		under	hypodermic, hypothermia
in-	<i>also</i> il-, im-	not, without	infertile, inappropriate, impossible
	<i>also</i> il-, im-, ir-	in, into, towards, inside	influence, influx, imbibe

infra-		below	infrared, infrastructure
inter-		between, among	interact, interchange
intra-		inside, within	intramural, intravenous
non-		absence, negation	non-smoker, non-alcoholic
ob-	<i>also oc-, of-, op-</i>	blocking, against, concealing	obstruct, occult, offend, oppose
out-		surpassing, exceeding	outperform
		external, away from	outbuilding, outboard
over-		excessively, completely	overconfident, overburdened, overjoyed
		upper, outer, over, above	overcoat, overcast
peri-		round, about	perimeter
post-		after in time or order	postpone
pre-		before in time, place, order or importance	pre-adolescent, prelude, precondition
pro-		favouring, in support of	pro-African
		acting for	proconsul
		motion forwards or away	propulsion
		before in time, place or order	prologue
re-		again	repaint, reappraise, reawake
semi-		half, partly	semicircle, semi-conscious
sub-	<i>also suc-, suf-, sug-, sup-, sur-, sus-</i>	at a lower position	submarine, subsoil
		lower in rank	sub-lieutenant
		nearly, approximately	sub-tropical
syn-	<i>also sym-</i>	in union, acting together	synchronize, symmetry
trans-		across, beyond	transnational, transatlantic
		into a different state	translate

ultra-	beyond	ultraviolet, ultrasonic
	extreme	ultramicroscopic
un-	not	unacceptable, unreal, unhappy, unmanned
	reversal or cancellation of action or state	unplug, unmask
under-	beneath, below	underarm, undercarriage
	lower in rank	undersecretary
	not enough	underdeveloped

## Appendix 2

### Hybrid words

This is Appendix 2, the list of common Hybrid words developed in English language.

Taken from: [http://en.wikipedia.org/wiki/Hybrid\\_word](http://en.wikipedia.org/wiki/Hybrid_word)

Common hybrids: The most common form of hybrid word in English is one which combines etymologically Latin and Greek parts. Since many prefixes and suffixes in English are of Latin or Greek etymology, it is straightforward to add a prefix or suffix from one language to an English word that comes from a different language, thus creating a hybrid word.

Such etymologically disparate mixing is considered by some to be bad form. Others, however, argue that, since both (or all) parts already exist in the English lexicon, such mixing is merely the conflation of two (or more) English morphemes in order to create an English neologism (new word), and so is appropriate.

English examples

- Aquaphobia – from Latin *aqua* "water" and Greek *φοβία* "fear"; this term is distinguished from the non-hybrid word hydrophobia, which can refer to symptoms of rabies.
- Automobile – a wheeled passenger vehicle, from Greek *αυτό~* (*auto*) "self-" and Latin *mobilis* "moveable"
- Biathlon – from the Latin *bis* and the Greek *αθλος* (*athlos*) meaning *contest*
- Bigamy – from the Latin *bis* meaning "twice" and the Greek *γαμος* (*gamos*) meaning *wedlock*.
- Bioluminescence — from the Greek *βιος* (*bios*) "living" and the Latin *lumen* "light"
- Dysfunction – from the Greek *δυσ-* (*dys-*) meaning "bad" and the Latin *functio*

- Electrocutation – a portmanteau of *electricity*, from the Greek *ἤλεκτρον* (*ēlektron*), "amber", and *execution*, from the Latin *exsequere*, "follow out"
- Eusociality – from the Greek *ευ* (*eu*) meaning good and the Latin *socialitas*
- Hexadecimal – from the Greek (*hex*) meaning "six" and the Latin *decimus* meaning "tenth"
- Homosexual – from the Greek *ὁμός* (*homos*) meaning "same" and the Latin *sexus* meaning "gender" (This example is remarked on in Tom Stoppard's *The Invention of Love*, with A. E. Housman's character saying "Homosexuality? What barbarity! It's half Greek and half Latin!".)
- Hyperactive – from the Greek *ὑπέρ* (*hyper*) meaning "over" and the Latin *activus*
- Hypercomplex – from the Greek *ὑπέρ* (*hyper*) and the Latin *complexus* meaning *an embrace*.
- Hypercorrection – from the Greek *ὑπέρ* (*hyper*) meaning "over" and the Latin *correctio*
- Hyperextension – from the Greek *ὑπέρ* (*hyper*) meaning "over" and the Latin *extensio* meaning "stretching out"
- Hypervisor – from the Greek *ὑπέρ* (*hyper*) meaning "over" and the Latin *visor* meaning "seer"; the non-hybrid word is supervisor
- Liposuction – from the Greek *λίπος* (*lipos*) meaning "fat" and the Latin *suctio* meaning "sucking"
- Macroinstruction – from the Greek *μακρός* (*makros*) meaning "long" and the Latin *instructio*
- Mega-annum – from the Greek *μέγας* (*megas*), meaning "large", and the Latin *annum*, "year"
- Metadata – from the Greek (*meta*) and the Latin *data* meaning "given"
- Microvitum – from the Greek *μικρός* (*mikros*) meaning "small" and the pseudo-Latin *vitum*
- Minneapolis – from Dakota *mni* meaning "water" and Greek *πόλις* meaning "city"
- Monoculture — from the Greek *μόνος* (*monos*) meaning "one, single" and the Latin *cultura*
- Monolingual — from the Greek *μόνη* (*monos*) meaning "one" and the Latin *lingua* meaning "tongue"; the non-hybrid word is unilingual
- Neonate — from the Greek *νέος* (*neos*), "new", and the Latin *natus*, "birth"

- Neuroscience – from the Greek νέυρον *neuron*, meaning "sinew", and the Latin "sciens", meaning "having knowledge"
- Neurotransmitter – from the Greek νέυρον (*neuron*), meaning "sinew", and the Latin *trans*, meaning "across" and *mittere* meaning "to send"
- Nonagon — from the Latin *nonus* meaning "ninth" and the Greek γωνον (*gonon*) meaning "angle"; the non-hybrid word is enneagon
- Pandeism — from the Greek πάν (*pan*) meaning "all" and Latin *deus* meaning "God"; the non-hybrid word is pantheism
- Periglacial — from the Greek πέρι (*peri*) and the Latin *glacialis*
- Polyamory — from the Greek πολύς (*polys*) meaning "many" and the Latin *amor* meaning "love"
- Polydeism — from the Greek πολύς (*polys*) meaning "many" and the Latin *deus* meaning "God"; the non-hybrid word is polytheism
- Quadraphonic — from the Latin *quattuor* meaning four and the Greek Φονέ (*phone*) meaning sound; the non-hybrid word is tetraphonic
- Quadriplegia – from the Latin *quattuor* meaning four and the Greek πλήσσειν(*plegien*) meaning "to strike"; the non-hybrid word is tetraplegia
- Sociology — from the Latin *socius*, "comrade", and the Greek λόγος (*logos*) meaning "word", "reason", "discourse"
- Sociopath – from the Latin *socius* from *sociare* meaning "to associate with," and the Greek (-*pathes*) meaning "sufferer" from *pathos* meaning "incident", "suffering", or "experience."
- Taikonaut — From the Chinese word for space "太空" (Taikong") and "ναύτ" (naut) meaning sailor.
- Television – from the Greek τῆλε (*tēle*) meaning "far" and the Latin *visio* from *videre* meaning "to see"
- Tonsillectomy – from the Latin *tonsillae* "to branch" and the Greek εκτέμειν (*ektemnein*, "to cut out")