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What is hidden beyond words

Non-verbal, implied and other pragmatic contents of communication

Diploma thesis

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Abstrakt

Název práce: Co se skrývá za slovy – Neverbální, implikované a jiné pragmatické obsahy komunikace

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Abstrakt:

Tato práce se zabývá implicitností, nejasností a dalšími pragmatickými složkami komunikace se snahou ilustrovat, do jaké míry a jakými způsoby je více komunikováno, než je reálně řečeno. Práce se zaměřuje na pragmatickou stránku jazyka, která přesahuje definice standardních komunikačních modelů a snaží se vysvětlit překonání mezer v jazyce, který nám neposkytuje prostředky na vyjádření všeho, co v komunikaci vyjadřujeme. Tato mezera je překonána díky pragmatickým, neverbálním, kontextuálním a dalším nesystémovým složkám komunikace. Práce podává jak teoretické zázemí, tak praktické ilustrační situace napříč vybranými kulturami (asijskými a evropskými), na nichž se snaží vysvětlit problematiku implicitnosti, nejasnosti a nepřímé mluvy. Poskytuje modely, teorie a empirická testování jak ze strany mluvčího, tak ze strany posluchače, který zprávy následně rozpoznává a interpretuje. Názorné příklady jsou podávány z mluvené komunikace, psané komunikace, neverbální komunikace a také online komunikace. Finálním cílem této práce je vysvětlit, proč v komunikaci k implicitnosti dochází a podat komplexnější vysvětlení implicitních strategií v komunikaci napříč lingvistickými disciplínami a za pomocí modelů synergetické, matematické i kognitivní lingvistiky a teorie zdvořilosti.

Klíčová slova:

Pragmatika, inference, relevance, kód, kontext, implicitnost, explicitnost, nejednoznačnost, interpretace, domněnka, konverzační implikatura, gesta, meme, emoji, synergetická lingvistika, jazyková ekonomizace, zdvořilost.

Abstract

Title: What is hidden beyond words - Non-verbal, implied and other pragmatic contents of communication

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Abstract:

This work focuses on implicitness, ambiguity, and other pragmatic elements of communication, trying to illustrate to which extent and by what means do we communicate more than is actually said. The thesis concentrates on pragmatical aspect of language which goes beyond the definitions of standard communication models and tries to explain overcoming gaps, which are caused by insufficient language means to fully express what we want to express. This gap is overcome through pragmatic, non-verbal, contextual, and other non-systematic aspects. This work provides theoretical background and practical illustrative situations across chosen cultures (Asian and European cultures), on which we explain the implicitness, ambiguity and non-direct speech. We offer models, theories, and empirical research from both the speaker's side, and the listener's side, who is tasked with recognising and interpreting the messages. The examples are given from spoken, written, non-verbal and online communications. The final objective of this thesis is to explain what causes implicitness in communication and to give a more complex explanation on strategies of implicitness in communication across different linguistic disciplines through the usage of models of synergetic, quantitative and cognitive linguistics and theory of politeness.

Keywords:

Pragmatics, inference, relevance, code, context, implicitness, explicitness, ambiguousness, interpretation, assumption, conversational implicature, gestures, meme, emoji, synergetic linguistics, language economization, politeness.

Obsah

Introduction

In this thesis we will investigate phenomena of what more is communicated than is actually said – a pragmatical stance on communication – and why such phenomena exist in communication. We will try to examine and illustrate on examples through what means, in which way and why people convey their thoughts and stances beyond the semantic meaning of their words.

Our strategy is to show on generally given examples from linguistics, especially pragmatics, and personal experience in which way do people convey their thoughts while not being explicit, being overly explicit, not using any words or even by using contrary words to their actual thoughts. We will give descriptive models, theoretical explanations and empirical data on how the listener is able to interpret the intended message of the speaker despite all the difficulties, and finally try to reason why such phenomena of being implicit happen in communication. We will also illustrate what differences can be created through different languages and cultures with particular comparison at multiple times between Europe and East Asia.

For this reason, in the first chapter we will look at communication models to explain the basics of communication. We will focus on code models and explain how messages and information get transferred from speaker to listener. We will however also venture deeper into more practical situations and the field of pragmatics by analysing situations that are beyond explanation of only code models by introducing inference communication model and its relevance theory in hopes of overcoming a gap between intended and expressed message that cannot be explained through codes alone. We will also look at the models from listener's point of view to suggest how listener overcomes ambiguousness and interprets conveyed messages.

In the second chapter we will focus on what are the types of implicitness people generally commit in communication. To do this, we will introduce the terms of assumptions, logical implications, and conversational implicatures together with case illustrations to explain naturally caused implicitness, while also covering non-standard conversational implicatures to showcase how implicitness and ambiguousness can be used strategically by the speaker.

In the third chapter we will dive even deeper into speaker's point of view and analyse how they can use words and situational context to cause intended interpretation in their listener, and how they can instead purposely mislead or enhance the message by not being explicit (or by being overly explicit), and the resulting effects this causes upon listener's relevance.

In fourth chapter we will investigate non-verbal communication and how do people convey their thoughts without using words. First, we will focus on gestures and describe their position in communication, what effects do they have and what role do they play when conveying messages, showcasing this on researched empirical examples. Then we will turn to emoji as a bridge between gestures and growingly popular online communication regarding transmitting

information. Lastly, we will investigate fully popularised internet memes as a communication tool to send a message without using our own words.

In the final chapter our goal will be to explain all the phenomena we illustrated in previous chapters and try to give plausible reasons for them. For this we will turn to several different fields. First, we will investigate quantitative and synergetic linguistics in search for explanation in descriptive linguistics laws. Through such laws we will offer an explanation from cognitive linguistics while also suggest a new term for research purposes, language economization, as possible explanation behind all natural language phenomena. Lastly, we will try to explain the non-natural or strategical language implicitness through social situation with special regard to politeness, while giving comparison between different cultures. This whole chapter should give a possible complex explanation for our research question of what more is communicated than is actually said, and why does this happen.
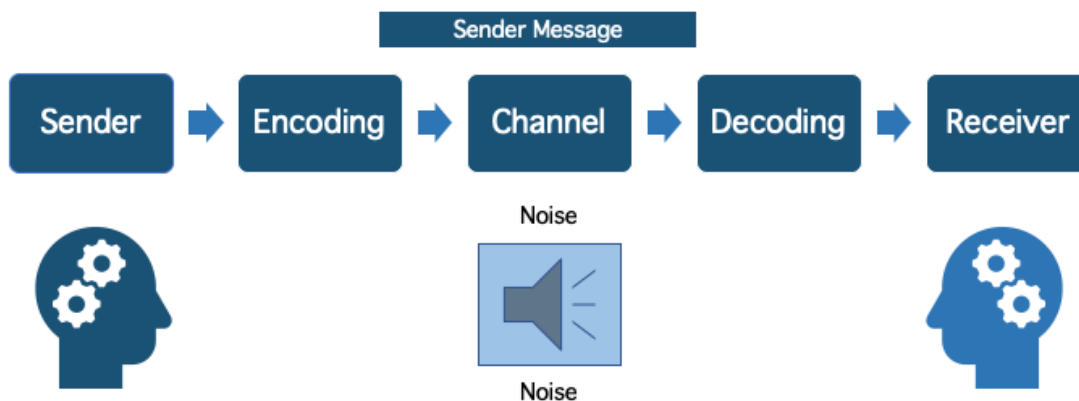
1   Communication models

There have been several models created in the past explaining how the communication between people is achieved. Models such as Shannon-Weaver's or Jakobson's are very popular for their quite self-explanatory simple structures and descriptions. Thus, many consider them the best models. Every time students learn about communication, they will learn these two models, are made to understand them, and essentially see them as the best descriptive method for the communication process. Few question whether the models are true for all kinds of communication given the abundance of examples where the models work without any problems. While both models heavily focus on codes, and the whole encoding and decoding processes, there are nevertheless situations where there are no codes used in communication at all. Allow me to introduce an alternative model theory by Sperber and Wilson (1995[1986]), which manages to explain some of such situations where other models fail, as we will soon explain on examples. This alternative model will become an essential part for this thesis coming forward. For this we first however need to again generally explain the previously mentioned code models to show in what specific areas they can fall short.

1.1   Shannon-Weaver's model and Jakobson's model

The base for both models can be considered the same. On one side we have a *speaker*, who is *encoding* a *message* into a *signal* to send it through a *channel*. This signal is then *decoded* by a receiver to understand the *message*. While this whole process is being affected by a *noise* (Shannon, Weaver 1949).

Here we have an illustrative schema based of Shannon-Weaver's model:

1 – Schema based on Shannon-Weaver's communication model[1]

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[1]Usera et al., 2021 [online].

Let us take a look at how the model exactly describes the communication process: A speaker has a thought that they want to convey, however, unlike machines which can easily copy the content itself, humans are not capable of such exact transmissions of thoughts. We need to change our thoughts into a type of media which can then be sent to the listener. This is generally done by *encoding* our thoughts in some kind of a manner. The most general way to do this in a communication are *words*. We use language as a type of code which can carry our thoughts in a form of signal through a channel. For spoken conversations this *channel* can be simply the air or a mobile phone, for written it can be a letter, an email, a book, …

Then there is a *noise* affecting the channel. We have to understand that by noise not only actual loud surroundings are the problem, but any kind of barrier making the receiving of message more complicated or impossible. Let us consider language barriers, cultural differences, technical difficulties, social standings, education etc. as possible forms of noise (there are ways to evade or limit this noise, e.g. by repeating words, using more extra words and other methods, but such is not the study of this thesis). Noise can be considered one of the primary problems for understanding the message according to the model.

Once the signal does manage to travel to the receiver, the receiver then begins the *decoding* process, which entails using preferably the exact same code as the speaker to understand the initial thoughts in the message. If the speaker and receiver are not capable of using the same code, the decoding is generally not possible.

While Shannon and Weaver heavily focused on a more technical description of the communication, accounting for mathematical aspects of information/data sharing and decoding, Jakobson looks more into functional aspects of the communication, focusing on humans and language use aspects. As Jakobson himself stated:

> „No doubt, for any speech community, for any speaker, there exists a unity of language, but this over-all code represents a system of interconnected subcodes; every language encompasses several concurrent patterns, each characterized by different functions." (Jakobson 1960, 352)

The basic schema of Jakobson's model is very similar to Shannon-Weaver's model:

CONTEXT

ADDRESSER   MESSAGE   ADDRESSEE

CONTACT
CODE

2 – Jakobson's communication model[2]

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[2]Jakobson, R., 1960, p. 353.

The main difference is however the already mentioned functions that Jakobson assigned to each factor of his model as seen on the picture:

REFERENTIAL

EMOTIVE   POETIC   CONATIVE
                   PHATIC

METALINGUAL
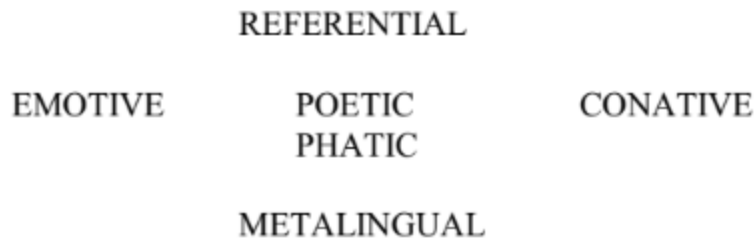
3 – Schema of functions in Jakobson's model[3]

Emotive function focuses on speaker's stance or attitude towards the message he wants to express, showing a certain emotion. *Referential function* acts as denotative; it refers to a certain context or reality. *Conative function* is oriented towards listener usually with the goal to affect them (e.g. imperative). *Metalingual function* is focused on the code itself, helping to verify whether both participants are of the same understanding; whether their decoding and coding process uses the same code (e.g. sentences: „Do you understand what I'm saying?" or „What do you mean by that?"). *Phatic function* focuses on the channel (contact) and is mostly about prolonging the communication itself, checking if the channel is working or whether the listener is indeed still listening (e.g. addressing someone, small talk, repeating things or Japanese aizuchi[4]). *Poetic function* in its broadest interpretation focuses on the aesthetics of a language, encompassing play on the words, illocution, repetition, rhythm, etc. This function is applied on the message itself and among others is very common in poetry, songs, slogans, advertising, or oral presentations (Jakobson 1960, 353).

According to Jakobson, while these functions distinguish six basic aspects of a language, very rarely would a communication entail just one function at the time but is instead generally a mix of multiple functions at the same time, representing an interconnected system. He states there is however a certain hierarchical order to their importance in communication and that *referential function* is the leading aspect for most communications. In other words, Jakobson himself gives great importance to the context in understanding any kind of communicated message (Jakobson 1960, 353).

Let us have an example of how much context affects understanding on a very simple sentence:

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[3]Jakobson, R., 1960, p. 357.
[4]Aizuchi in Japanese is a particular practice where listener constantly interjects the communication to indicate they are indeed still listening. It is common to add a subtle „mhm", „hmm", „hee", „ooh" etc. after each speaker's phrase to show you are listening and are interested in the subject. It is very important to use this practice, otherwise the speaker will either be discouraged to continue talking or view you as a rude person for not listening to them. (Naito, K., 2023 [video].)

A: „It passed already.“

May prove to be quite difficult to interpret even when using the correct code (language) and having semantic understanding of all the words. When we however add a context:

A: „Is your birthday coming soon?“

B: „It passed already.“

Now we can quite easily decode the information. This is the result of considering a context of the message, even though everything else remained the same.

Based on this, one could argue that code is not especially necessary and often insufficient, and that context is more vital. For example, even when we do not know a foreign language, we can, even if rarely, still understand the basic meaning of a sentences based on the context around us. However, not only are these situations rare and we usually need at least some basic knowledge of the code (language), there are even situations where communications without code are literally impossible. There is a great case made by Eco (1976, 36) explaining the importance of code in non-spoken communication when two people across a mountain need to communicate about water level in the river and how to operate a dam. One person must indicate the water level by only pressing the buttons on a machine that will then send a signal to the person operating the dam. For them it would be impossible to understand each other without having clear rules on the coding system of all the possible signals (Cobley 2013).

Nevertheless, even if we now agree that codes are important and inevitable part of human communication, as both mentioned communication models show, we can now also argue that human communication is much more complex than being only a structure of codes. There are aspects that cannot be explained using only codes and there are situations which even both models fail to properly describe. In this thesis I will be largely focusing on and giving such examples from East Asian languages since from their study came the main inspiration for this work.

Let us have a situation one can come across while studying Japanese. Many Asian cultures established such a deep understanding of context and hidden meanings in their cultures (maybe partly through the stereotypical reason that being direct is viewed as rude) that many Westerners find the indirectness as one of the hardest parts to understand when learning the languages[5]. It is quite common to omit some parts of sentences and not say things explicitly or say them in a roundabout way. However, person studying Japanese soon comes to understand that Japanese

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[5] Here we are talking about concept of high-context and low-context cultures, where high-context cultures tend to depend on the listener to understand the implicitness, not having to be specific, while low-context cultures are oriented to direct and explicit use of language. In the scheme, Japan, China, Korea and most of Asian countries are ranked as high-context cultures, while USA and most of European countries are ranked as low-context cultures (Hall 1976, 113).

language takes the situation far and beyond. It has gotten to the point that most of the proper grammar in a sentence can be fully omitted. According to Eco (1976, 36), the codes are a complex form of a rule created by combining *s-codes*, which could include different individual systems like syntactic, semantic, or a set of behavioural responses, etc. Since grammar uses such systems like phonetic, syntactic, morphologic, semantic etc. as well, combining them under rules, it could be considered as a code. If even such a code as grammar could be excluded, this clearly changes the way we can look at communication drastically. Let me show an example I myself encountered.

There was a situation in which a Japanese girl held an orange in her hand, looked at me and simply said:

„Eat?" („Taberu?" in Japanese).

Now it is important to mention that while Japanese language does have conjugations, she fully discarded them and used infinitive. She did not mention any other word, either. Not an object or subject, nothing. If we look only at semantic meaning of the word, we will know it is referencing to the act of eating. Based on the context, we can probably imagine she is talking about that orange. But is she really? What if she is just holding that orange by chance and asks me if I want to go have a lunch? What if she is asking me for a permission to eat that orange? Or is she maybe offering the orange to me? The context and code are, logically speaking, simply not enough to explain how to interpret this situation as none of them are clear enough. Yet I understood she was asking „Do you want to eat this orange?" by simply saying one verb without any conjugations. How did I manage to get over this gap in the semantic meaning and coding to actually understanding the initial message? According to Sperber and Wilson:

„[…] there is a gap between the semantic representations of sentences and the thoughts actually communicated by utterances. This gap is filled not by more coding, but by inference." (Sperber, Wilson 1995[1986], 9)

This is where we are getting into the area of pragmatics and cognitive linguistics in the communication as we need to focus on *what more is communicated than is actually said,* which is one of the definitions for pragmatics set by Yule (1996, 3).

1.2   Inference model

There are some opinions that pragmatics can be incorporated into general models of communication by stating it is just another type of a coding system, like semantics or syntax. That people have general knowledge and some kind of mental code thanks to which they generally understand the non-explicit and abstract words. Thanks to this mental code they can explain most things by assigning them the meaning based on common knowledge we all have. Examples can

be abstract words like meaning of „tomorrow" in a sentence or meaning of „I" in a sentence (Sperber, Wilson 1995[1986], 12).

There are however more than less cases where interpretation of our mentality and thoughts systems exponentially differ from others. It would be hard to imagine all people share the same mental code systems when even family members think often so differently and interpret things differently. Just this alone signifies that pragmatics cannot be simply taken as a certain code system and included into our current models. This leads us to explain the concepts of inference and relevance.

1.2.1 Inference

Let us mention our previous example with the orange. Can we understand the message without even any words at all? Imagine a new situation with family member, and they reach out to us with a bottle of water. Generally, we would infer that person is suggesting taking that bottle to drink it. But there is no code stating that reaching out a bottle of water to someone would mean telling them to drink, yet we inherently understand it this way. Clearly on such a simple example some may argue that this is quite evident, and everyone would understand it the same way, meaning there is that mental code as previously mentioned.

Let us then have another case. We are talking to a friend and want to ask them about their holidays in the mountains:

A: „How was the skiing?"

B: *Shows a broken leg*

Now even more evidently there is no code signifying that showing a broken leg is a rule to answer this kind of question. How to understand this? A) People could understand this as the weekend skiing not going well, since the friend hurt themselves. B) What if, however, we know the friend hurt their leg before going to the mountains and was not sure if it is truly broken and only later found out and so they could not even go skiing? C) Or what if the friend hurt themselves before going without us knowing, and wanted to say this by showing his broken leg? There are multiple interpretations and not even a code or the current context are helping in this situation. What is more, just on our original knowledge of the situation, our interpretation can change greatly between all possible versions of A, B and C. Either way we will still reach a conclusion suitable for our own understanding and interpret the message in our way, without knowing if we understood it correctly, unless stated otherwise. Which shows that communication (and inference) is always a subject to *risk*, as one can simply never be sure if they understood the speaker's initial thoughts perfectly (Sperber, Wilson 2006, 184).

If communication was working simply based on code models and exact rules, there would not be so many misunderstandings. There were indeed some tries to describe more exact rules and fully explain the phenomena, not only for semantics or syntax, but for ever so problematic

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pragmatics itself. This was done by Paul Grice (1991[1975]), where he came with his theory of *co-operation principle* and *conversational maxims*. In his paper he tried to explain certain limits in which a speaker shares his thoughts. The speaker should generally state only truth (maxim of quality), give enough information but not too much (maxim of quantity), talk about the current topic (maxim of relation) and speak clearly without being ambiguous (maxim of manner). Then all communication participants should also adhere to co-operation principle which supposes all the maxims are naturally fulfilled as best as possible given the situation. This descriptive theory depicts an ideal situation, but is however not only full of unclear areas (what is too little or too much information? How do we avoid being unclear? What about people that stutter? Can we always be sure we are telling the truth based on our limited information?), but it also often fails to describe many of the communication situations that actually happen. And indeed, while these should be the set communication rules, even Grice himself states that people often fully omit these rules which leads to creation of conversational implicatures (more on the topic in later chapter), meaning this theory fails to fully describe pragmatics. Other authors like Searle (1969) or Austin (1975) also tried to help define pragmatics and make some categories but there are always unclear areas. This shows that while there have been attempts to categorize and describe rules for communication in pragmatics, the result is such rules are very often unclear and not even followed by speakers. Yet somehow, we can still communicate and usually understand each other. According to scholars Sperber and Wilson, this is achieved through *relevance theory* (Sperber, Wilson 1995[1986]).

1.2.2   Relevance theory

Let us re-examine the cases with skiing, oranges, or bottle of water once again. Try to imagine being in such situations and how would we interpret them. The answer would be „By considering the most obvious interpretation.".

When people participate in communication act, they look out for three things (Sperber, Wilson 2006, 186–189):

1) They look for the *new information that complements* the current knowledge.
2) They look for the *new information that denies* the current knowledge.
3) They look for the *new information that enforces* the current knowledge.

These are the main points that people look out for during conversation according to the theory. All these points hold *contextual effects* (as Sperber and Wilson call it); the *higher the contextual effect, the more relevant that information is* to us. In simpler words, if the information is new, complements, enforces or eliminates our current knowledge about the topic, the more relevant the words are to us. If we hear things that have nothing to do with the topic (like small talk), we do not give them much importance and do not pay as much attention.

There is another aspect affecting the relevance, though. Going back to our family member giving us a bottle of water. This time assuming they give us some accompanying words:

A1: „It's too hot today."

                    OR

A2: „It's too hot today, I'm bored, the water is heavy and I'm tired, plus I'm having a meeting tomorrow."

If we just consider our current context and situation, A2 is full of non-relevant information. Why should we care now that they are bored or that they have a meeting in relation to the bottle of water? We are trying to interpret why are they giving us the water, so the significant information here is „It's too hot today" as it may suggest he is telling us to hydrate. Everything else is non-important for the current inference and thus only confuses us as to why they are telling us such things; this adds burden to our interpretation process – this was described as *processing effort*.

„(a) Other things being equal, the greater the contextual effects, the greater the relevance.

(b) Other things being equal, the smaller the processing effort, the greater the relevance."

(Sperber, Wilson 2006, 188)

This means that we focus on the information that brings the highest contextual effects while being the easiest to process. The result of this balancing leads to identifying and interpreting information based on how high their relevance is to us. Once something has the highest relevance (highest contextual effect and lowest processing effort), it is considered the most important to us, and thus will be the probable result of our inferences in communication – here it would be the simple "It's too hot today", inferring they are giving us the water to hydrate.

Fully returning to our first example with Japanese. Being in a room with friend, she holds an orange and says: „Eat?". She is giving the information of eating something. Given that we expect she will be talking about current situation, we can infer she refers to the orange. Knowing the orange is not ours, it is possibly hers. Given she is talking to us about eating, we naturally infer she is giving us that orange and asking if we would like to eat it. Basically, we considered the most relevant information based on our current knowledge of the world and this moment, and then reach the most probable interpretation of the ambiguous situation.

1.3   Parsing the ambiguousness

There are more studies not only from pragmatics, but namely from psycholinguistics and cognitive linguistics, about perception and interpretation or decoding of words, particularly in the

context of polysemic words. There are generally three streams (models) of opinions on the topic on the ambiguousness (Simpson 1994, 360).

(1) The first one is going by the *ranks of meanings* (frequency) of the polysemic words (e.g., work by Hogaboam and Perfetti 1975). Basically, after we hear some multi-meaning word, we first think of the most common meaning, only then we consider the context and see if it fits the situation and eliminate if not. Then we think of the second most common meaning and so on we slowly eliminate each based on the context and situation until we finally reach a meaning that is possible.

(2) The second model states that the meaning is *context-dependent*, which means we use selective access to our memory and immediately pick a meaning that we find most suitable to the situation (e.g., work by Glucksberg, Kreuz & Rho 1986).

(3) Third opinion is of *multiple access model*, where every time we encounter an ambiguous word, all its possible meanings are recalled in our mind independent to their frequency (e.g., Conrad 1974). Only after all meanings undergo initial processing do we select the appropriate one for the situation (this model is generally the one most widely accepted).

Further opinions suggest a mix of second and third models, arguing that while we do recall many meanings at the same time, we do not recall each and every single one of them, but only recall several relatively possible in accordance to previously given context (Duffy, Morris & Rayner 1988). It is hard to tell which of these processes is happening in our brains though; not only because everyone can rank the probabilities of the meanings differently based on what they are used to in their social groups, but also because all these opinions reach mostly the same goal, so it is hard to say which method is being used by us.

However, there do exist some tests possibly telling us what is really happening when we process ambiguity. These tests were done by using eye-tracking devices and were conducted on written texts (Simpson 1994, 360). Ambiguous word was put into a sentence and the focus was on how long the eyes would linger on such words suggesting the length of processing time. The first tests were done by putting ambiguous word first and only then giving exact disambiguating context in the remainder of the sentences. According to results, foremostly, participants in the test showed that ambiguous words made them linger on the word for longer than the rest of the sentence. If then the ambiguousness of the word was balanced between its possible meanings, their eyes stayed on the word even longer than if the ambiguousness was unbalanced and inclined more to one probable meaning. This shows that processing time is longer the more uncertain we are of the meaning, which could be a possible indication of considering all the multiple choices (supporting the use of third model which says we recall all possible meanings at the same time). If the ambiguous word was placed to the later part of the sentence only after giving a clear context, the previously balanced ambiguous words were processed much faster, suggesting we directly chose a meaning fitting the context without going through each option (supporting second model). But on the contrary, the unbalanced words now took much longer to process if

the context given supported the usually less expected meaning of the ambiguous word. This could signify that the unexpected meaning was not originally recalled in association of the word, but had to be now, based on the context (these results tell us that the third model, where we are supposed to recall all the meanings first, does not fully apply, as some meanings were originally omitted and only specific context made us recall them, instead supporting second model as well) (Simpson 1994, 360).

This experiment however shows that giving context first indeed affects our chosen meaning and processing time (which strikes as going in opposition to the first model). Context turns the most ambiguous (most balanced) words into easy to process ones compared to not giving any context beforehand. On the other hand, for previously unbalanced polysemic words it made the processing harder in situations when the meaning was the unexpected one, forcing us to additionally recall the less common meaning (we need to mention that adding processing time is not always a wrong thing, as without giving the context which caused the longer processing time, it is possible that listener would interpret the word incorrectly by focusing only on the more probable meaning).

This experiment shows that context should affect our interpreted meaning. It also supports the theory that more meanings are probably recollected at the same timing, given the results for both balanced words without context and unbalanced with context, showing how the processing time grows with more or with less expected possibilities (Simpson 1994, 360). As a result, the most supported mixture of two models, context-based one and multiple-access one, is probably how we mentally pare with ambiguousness. This tells us that context, and based on it what is relevant the most at the time, is one of the primary influences.

This hopefully explains the theory that relevance is a basic principle on which communications mostly work; people focus on what is most relevant and based on that they infer the probable meaning and message, sometimes even without using codes.

1.4   Problem of interpretation

Of course, now we have another problem standing in our way. If we just interpret things based on our own relevance and probability, how can we be sure we got exactly what the speaker wanted to convey? If there are no clear codes needed telling us how to decode the message? It is quite simple, we cannot. As mentioned before, communications are prone to risk of misinterpretation and misunderstandings. Relevance theory is a basic cognitive model, but we must understand that speaker still needs to be very aware of what they are saying or implying. They need to consider what is listener's current knowledge on the topic, what is the most probable interpretation that the listener will infer and then consider if this inference is what they are trying to really convey, otherwise they should explain themselves differently and avoid being ambiguous.

Going back to our example with orange, if our friend wanted to say she loves eating oranges, she should be aware of the situation and say this clearly in a way that there will be no misunderstanding. It stands that speaker should always consider how can their words be interpreted and needs to be clear enough to eliminate possible misleading interpretations. If she does not want me to eat the orange, she should specify she is talking about herself and her love for them. Similarly, if the family member does not want to share his bottle of water, he should clearly suggest buying our own as well since it is indeed too hot.

It is based on this balance of listener focusing on relevant information and inferring the meaning and speaker being aware of possible interpretations and carefully selecting his words, that most communication happens.

„As long as speakers systematically observe the standards, and hearers systematically expect them to, a whole range of linguistically possible interpretations for any given utterance can be inferentially dismissed." (Sperber, Wilson 1995, 13–14)

„A speaker who intends an utterance to be interpreted in a particular way must also expect the hearer to be able to supply a context which allows that interpretation to be recovered." (Sperber, Wilson 1995, 16)

If we just look at these two sentences, it should be quite clear that speaker is the one who needs to be careful how they are conveying something and how this can be interpreted. It is however important to note that many people use this same fact to purposely enforce a certain interpretation, which we will show later in this thesis.

2   Types of implicit meanings

We could say that people are quite a lazy specimen and prefer to preserve as much energy as possible. This is true even for speaking, as many quantitative descriptive laws in linguistics show us (Zipf 1949; Köhler 2012; Menzerath 1928). We all rely on implicit meanings; or what should be obvious and thus does not need further mentioning. We will go deeper into possible explanations for this phenomenon near the end of this thesis, but for now let us show some basic categories into which we can split the main types of implicit meanings in a communication. These mentioned categories of implicit meanings are (1) *assumptions*, (2) *logical implications*, (3) *standard conversational implicatures* and (4) *non-standard conversational implicatures*. The categories were introduced by Norman Fairclough (2003, 59) who based them on works of many other scholars who we will also mention with their corresponding theories in this chapter.

2.1   Assumptions

First, we should look into a category that Fairclough himself introduces in his book (2003, 39); *assumptions*. In the broad sense assumptions look at what is *said* against a background of what is *unsaid but taken as given*.

As we all know, assumptions are a vital part of our daily communication. We all first consider what our listener knows and then pick what we can fully omit. It is safe to assume the listener will have the same or similar knowledge on the subject we are talking about as we do, and thus will be able to understand what we are saying even when we omit some parts. Since all people go through similar experiences in life and have a similar way of thinking, they can basically know what parts are generally omitted and successfully infer the non-stated parts. This commitment to assumptions then helps us lead the communication more efficiently.

How many assumptions did we create in the previous paragraph? On one hand we have *intertextuality* (which Fairclough links and puts into a kind of opposition), which actually refers to other texts, connects them, joins their opinions and references the actual facts and data or opinions stated elsewhere. On the other hand, assumption works on the principle where we simply do as the term says; assume without having any evidence to back our thoughts, like we just did. We can have examples like „as we all know", or „it's expected" while not clearly stating where we get the backing evidence of such claims. And while this is a mental process so we cannot easily back it with statistics, we can to some extent argue that the paragraph full of assumptions shown above may not be far from an actual truth. Let us imagine our day-to-day conversations. How many things do we omit in our communication simply because we 'know' the other person has knowledge of what we are talking about?

Let us however try to investigate assumption more scientifically. The idea itself is not entirely new, as Fairclough himself compares his term assumption with a term frequently used in linguistic pragmatics; *presupposition* (let us enforce that we mean presupposition in the pragmatical sense and not the truth-value or semantical sense). He also states that „Texts inevitably make assumptions." (Fairclough 2003, 40). While we don't have any credible data to support this belief, we can understand that assumptions are indeed an inevitable part of our communication if we look at the three main types of assumptions he distinguishes and what they encompass.

Before going into those types of assumptions right away, we should more clearly state the difference between intertextuality and assumptions as Fairclough calls it and explain more in depth why he links these terms and where do they differ. Intertextuality is one of the main attributes of texts (De Beaugrande, Dressler 1981). While assumptions are not included on the list of such attributes, Fairclough puts them into a kind of opposition. Yet, one could even count assumptions as a type of intertextuality since both actually refer to the world of texts and both

work as a claim that what a speaker is saying or implying was actually stated somewhere else[6]. That the speaker indeed heard or read the information somewhere (or pretends he did) and is now referring to it. For intertextuality we bring in other voices and open up to opinions of others by clearly referencing the origin of the information (similarly to how we do while writing this type of thesis so anyone reading it can go and check the exact words, ideas, and opinions of the mentioned authors). Meanwhile for assumptions we diminish the words of other authors by blurring them and not giving the exact reference. The *unsaid but given* part of the sentence that is purportedly taken from elsewhere is left vague, without any clear reference to that said *elsewhere*. According to Fairclough people may make such assumption mistakenly (by attributing to the wrong person or not checking if our source was even a valid one), dishonestly (by lying we heard it somewhere or purposely make our own ‚data‘) or even manipulatively (by trying to enforce a universal opinion of a particular group with regards to social identities or standards). So, while assumptions and intertextuality are not in the opposition regarding attributes of texts itself, they do to some extent stand in opposition in the way they refer to the world of texts (Fairclough 2003, 40). Intertextuality is not implicit by itself as it clearly states our sources when it mentions them and explains where we got the information or who said the information. Let us look at a case of direct stating like „Michael said he will come late.“, where we have a clear source, or another example could be direct quotations and references in this thesis. Meanwhile assumptions are full of implicit meanings, like in saying „He will be late for sure“, where we do not have any actual evidence but just assume that is going to happen based on our personal and maybe biased experience.

With that explained, we can finally get into the types of the three assumptions (Fairclough 2003, 55). The first type of assumption we have is an (1) *existential assumption*. These are assumptions about what does or does not exist. When we say „Codes are essential for human communication“, we are assuming a thing like codes actually exists. Next we have a (2) *propositional assumption*, which talks about what could be or will be the case. Here we can put the instance of saying „He will be late for sure“ or again the just mentioned sentence of „Codes are essential for human communication“, where the propositional assumption this time lies in the word *essential* (as mentioned earlier, we can have a situation where codes are not essential so in this case we just assume them to be, see chapter on Jakobson's model). The last category is a (3) *value assumption*, which talks about what is good/bad or (un)desirable. To illustrate, on a weather forecast we can hear a sentence: „There is a risk of a heavy rain.“. By stating it is a risk, the

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[6] Note here we mean intertextuality in the sense of actual referencing to other texts, like was explained by Genette (1997) or Fairclough (2003). This is just to prove the point in which way to the two terms - intertextuality and assumption – do differ. The intertextuality in a broad sense is however applicable as well to an extent, as such concept is created by our interconnected knowledge of the previously read/heard texts and connecting them between each other (Kristeva 1980); while assumption can do the same thing and the terms do overlap, it can however be also very biased and connect to non-existing texts, thought up texts, uncertain texts, and even wrongly attributed texts.

forecaster values and assumes that rain is not desirable. But that is a mere assumption on their part as other people may prefer the sudden heavy rain than continuous days of heat.

Fairclough expands upon the categories further by stating each assumption can also be *triggered* (or caused) by linguistic features itself (2003, 56). (1) Existential assumptions are generally triggered by linguistic features like demonstrative pronouns (*this*, *that*, *these*, *none*, etc.) or even by definitive article *the*. (2) Propositional assumptions are often triggered by factive verbs (realise, discover, learn, remember); in a sentence „While working I realised students are inexperienced" causes an assumption that all students are inexperienced which was triggered by the verb *realise*. (3) Value assumptions can also be triggered by certain verbs. In a sentence „Watching movies will help you learn a foreign language.", through the word *help* we assume that the listener wants to learn the foreign language and thus learning is desirable (while it is possible he does not care for learning more languages). Of course, not every time does an assumption need a trigger as there are none in our examples mentioned previously, but it is good to know that some words may indeed cause an assumption (even the *good to know* here caused another assumption).

In this way we explained the first category of implicit meanings, assumptions. In a way assumptions were one of the biggest inspirations for this thesis as they entirely focus on the background of what is not actually said. It is also only proper to mention that while we cite mainly Fairclough here, he is not the only one comparing assumptions to pragmatic presuppositions. Robert Stalnaker also mentions that to him presuppositions are an assumption of common knowledge between communication participants and are thus generally unsaid and omitted on implicit level to not cause over redundance and better the efficiency of the communication (Stalnaker 1991, 472). In a later chapter we will go into more details on the specific assumptions or pragmatical presuppositions regarding their exploitation.

2.2   Logical implications

Logical implication can be considered as one of the most typical functions of predicate logic with the symbolical meaning "if A then B". Our goal here is however not to get deep into theories of logic (especially first-order logic) researched by many philosophers like Quine (1953, 1960) or Tarski (1983), but to examine logical implications from the point of linguistics and implicit meanings in communication.

Logical implications in connection to implicit meaning in communication are, unlike deep philosophical questions on logic itself, quite self-explanatory. We can find them in the features of the languages itself. The most common being declinations or conjugations of the languages. We can have an example of „I have been studying English for two years." Not only are we saying we studied it for two years, but we implicitly say we are still continuing to do this action based on the *time* and its *perfect* character we used in the sentence. Very often the meanings are also implied by the usage of conjunctions; let us have a sentence of „He is a German, yet isn't punctual at all." The conjunction *yet* gives us the impression that all Germans are punctual, even though this

information is not really explicitly stated by the speaker. We have the same situation in a statement „I'm Japanese, but I can speak proper English", which implies it is quite common for Japanese people to not be able to speak proper English (Fairclough 2003, 60); whether this is actually true or just the speaker's opinion does not matter (which in some ways diverges from the pre-mentioned first-order logic which generally also focuses on the truth of the saying itself). Similarly, whether we as listeners have the same opinion as the speaker, a different one, or do not know the situation at all, we can imply the logical meaning either way and reach the same conclusion just by knowing the language features. Logical implications have fundamental position in text-comprehension, and we can come across them very often in many aptitude testing tests (like high school or university entrance exams where we are made to read through articles and based on them give logical sentences/answers on the implied meanings. This is also quite common when doing foreign language certificates as they are testing if we know the logical features of the given language). We are constantly in our daily life determining and deducting implicit meanings from logical implications in languages (Sagüillo 2002, 43).

While not all languages have the same type of inherent logical implications (thus the before mentioned language certificate testing), they do have different ones based for example on their language typology and their cultural development. Like how English has perfect times to indicate the ongoing effect of something, languages like Chinese, Korean or Japanese may use particles to indicate the word relations in the sentence. Languages like Spanish or Italian can also use subjunctive modality to express a speaker's attitude, feelings or hypothesis in contrast to given and objective facts. By learning and knowing how a certain language functions, we are able to infer these logical implications.

2.3   Conversational implicatures

Conversational implicature is a famous descriptive pragmatic theory introduced to us by Paul Grice in his text Logic and Conversation (1991[1975][7]). Before we explain more about the implicatures and why they are a context specific type of implying, we first need to re-introduce two concepts leading to these implicatures, as we briefly mentioned them previously.

The first concept we need to introduce are the *maxims*. Paul Grice categorises four types of maxims, or limits of expression of a speaker, as some could call it. The maxims are of quality (give enough but not too much information), quality (speak truth), manner (be clear without being ambiguous) and finally of relation (speak to the topic).

The second and another well-known concept is a *cooperative principle*. In the most simplest words, we could say it is a principle of *your contribution to the conversation should be done at the correct moment with a clear motive and about the current topic*[8]. In other words, in order to lead a rational and meaningful communication, both sides need to cooperate and

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[7] Text Logic and Conversation reprinted from *Studies in the Way of Words* by Paul Grice.
[8] Own definition based on Grice's (1991[1975]) and Hirschová's (2013) definitions.

contribute to the topic in the correct moment and clearly. This basis of cooperation principle should be fulfilled on the assumption that all participants of the communication are adhering to the maxims to the best of their abilities.

While this theory describes the ideal situation, very rarely are we in such a situation where we can accomplish all the maxims at the same time. Sometimes the cause can be simply not having enough information, other times we break some maxims by mistake and sometimes even strategically and on purpose. Not to mention that the theory has several unclear areas. What can we count as being too much or too few information? How can we be sure we are stating the truth? Who decides if we are speaking clearly if one person can understand and another fails to? To what extent do we fulfil maxim of relation when the topics of conversation keep changing? While the communication would be undoubtedly much easier if all participants were always fulfilling these maxims, even Paul Grice was aware of such problems and unclearness and similarly realised that in some situations people are forced to break a maxim or balance on the verge of breaking it. This is a reason why he proposed a notion of *conversational implicature* (Grice 1991, 310).

Paul Grice offered three main groups of conversational implicatures to explain his theory. The (1) first group being the one, where the *maxims are not violated*, or it is not exactly clear if they were.

Fairclough in his book gives an example of: „Is there anything to see in Lancaster?" (Fairclough 2003, 60). From which if none of the maxims (especially quality) are being broken here, we can infer the speaker is implying he truly knows nothing about the city.

Paul Grice on the other hand gives an illustrative communication between two people:

A: „I am out of petrol."

B: „There is a garage around the corner." (Grice 1991, 311)

We know exactly what the second person is implying. Yet precisely, they are only implying; not stating the words exactly nor giving us a direct reply (which could be: „If you are out of petrol, you can find some to refuel in the garage around the corner"). We could be, in fact, breaking two maxims at the same time in this situation. With regards to the maxim of relation, we are not giving a clear connection between the sentences and just skip over several possible steps in the communication. Yet the listener has no reason to suspect we are intently breaking a maxim, so they instead assume we do fulfil the relation maxim and could thus infer we believe (and imply) the garage to be a place where they can find the petrol. So strictly speaking we may not be breaking the maxim since the listener reaches the intended implication by believing we did not violate it. With regards to maxim of manner, the listener needs to infer why exactly is the speaker saying it in such a roundabout way without stating the clear intention. Yet we can understand the hidden implication to be „you have to go there yourself and see if you get the petrol", it is similarly arguable whether the maxim is violated or not.

Next, we have the second group (2) of conversational implicatures in which a *maxim is violated but the violation is caused by a clash with another maxim*. Let us have the simplest illustration of a quantitative maxim being broken:

A: „What is Anna's hometown?"

B: „It's in the north."

In this situation we have an example of person B not giving enough information. He was asked about a hometown yet answered vaguely by stating only the direction of it. If we on a common basis expect that B is not opting out of the communication, we can infer that they plainly do not know more precise information and did not want to lie by violating the maxim of quality. Thus, the conversational implicature was created (Grice 1991, 311).

Let us have an additional situation of a clash between maxims of manner and quantity, given a simple exchange of:

A: „What did you do this weekend?"

B: „I was working. And you?"

While „And you?" is clearly breaking the maxim of manner by not being clear with the question. We can however expect (assume) a maxim of relation to be fulfilled; that B is talking about the same topic as A. Since we already know the topic is a weekend and how we spent it, overly repeating our words, and adding unnecessary information may violate the quantitative maxim (do not give too much information). So, while we violated the maxim of manner for the sake of keeping the maxim of quantity, the implied meaning is understood thanks to cooperative principle and other maxims being fulfilled.

Both of these two groups are what Fairclough means under the category of *standard conversational implicature* (we are talking about the four types of implicit meanings as a whole).

„Standard conversational implicatures are implicit meanings which can conventionally be inferred on the basis of our normal assumption that people are adhering to […] conversational 'maxims'." (Fairclough 2003, 60)

As we see, we can use the whole context (and empirics) to help us imply and convey the meaning even while we skip over some facts. This is happening because the listener expects the speaker is adhering to the cooperative principle and maxims to the best of their abilities and consequently infers the missing pieces of information. If the listener realises there to be some missing or unclear part of what the speaker is saying, he can generally infer the meaning just on the fact of wondering why such a part was skipped (like the case with Anna's hometown and our

inference that the speaker does no know where it is since he did not say). Of course, we can still expect the inference to fail if all communication participants do not share the same context as with other implied contents.

We have however yet to mention the final of the three (3) conversational implicature's groups stated by Grice (1991, 310). This particular and final group is what Fairclough calls *non-standard conversational implicature*; out final type of implicit meaning.

2.4   Non-standard conversational implicatures

Non-standard conversational implicature happens based on what Paul Grice calls *flouting,* or *blatantly disregarding a maxim*. This happens if the speaker can fulfil the maxim without clashing with any other, is not avoiding the conversation, and is not blatantly trying to mislead the listener, yet violates a maxim.

According to Paul Grice, flouting is done on purpose of getting into conversational implicature. Meaning, while the previous two groups were creating an implicature on mistake or inadvertently, this 'non-standard' one is purposely created by the speaker, often through means of figures of speech. Though based on the level of explicitly said words the maxim is clearly violated, but assuming the cooperative principle is being followed, the maxim is still present at an implicit level (Grice 1991, 311).

Fairclough also describes this type of implicature as apparent breaking of the maxim yet adhering to it on an implicit level of meaning. He also gives greatly illustrative example of a situation where a candidate applies for a work position and an interviewer only writes down 'well-dressed and punctual.' This note does not have much to do with the actual abilities of said candidate nor does it have any connection to the actual position. Yet to a person reading the notes, this can be taken as a subtle way of saying 'This person does not have adequate skills and there is nothing special about them to point out related to this position.' The interviewer could have fulfilled all maxims, yet chose not to, while not opting out of communication or trying to mislead. In fact, by flouting the maxims, the interviewer *exploited* them to create a communication implicature. He never explicitly said anything so the words cannot be directly taken against him, yet the implicit meaning was understood. This is a reason why Fairclough calls this type of implicature as a *strategic* one (Fairclough 2003, 60). Paul Grice, however, gives us more precise examples of what happens when each maxim is being flouted.

The case given by Fairclough with the interview fits into a *quantitative maxim* being flouted. By not explicitly giving enough information, they are implicitly saying there is simply no valid information to give.

The typical illustration of flouting a *maxim of quality* is being *ironic*. Having a situation where A and B are close friends, but A learns that B was actually spreading accusations about them behind their back this whole time. Learning this, A says: "Wow, he is such a great friend.". It is obvious that A does not truly mean his words and to his listeners who know the situation, it

is similarly clear. By saying this, A realises his listeners will understand that he is linking some kind of relation, the most typical being the opposite meaning. Listeners will understand this as "He is not a good friend at all.". Yet this kind of meaning is only implicitly conveyed to those who know or understand the situation, while others may take the explicit words as the truth, which can be also strategically used, if we need some group of people to understand our words differently.

A case of *maxim of relation* being broken can be a steer change of topic. In a bar setting where two people are having some drinks together, person A asks person B whether they are single. B may react by saying "Oh, isn't this drink so tasty?". By blatantly breaking the maxim of relation, they are implicitly conveying they are not interested in person A and also implicitly tell them to drop the question.

Flouting *maxim of manner* is quite evidently strategic in its own nature, with the most typical example being *ambiguity*. We must however realise that we are talking about a deliberate type of ambiguity, not one caused by wrong choice of words. Grice gives two cases of ambiguity: balanced and unbalanced one. (1) First is when two possible interpretations are similarly possible (*balanced ambiguity*); this is quite often found in literature works or songs where authors like to play with words. One word or sentence can have two interpretations but by leaving them both there as options, the reader/listener can implicitly understand that both interpretations are correct (Grice 1991, 312). To show the point, just few years ago a popular Japanese comic called *Sousou no Frieren*[9] (Yamada, Abe 2020) started publishing. The story tells a simple tale of a group of heroes going to save the world by defeating a demon lord, with Frieren being an elf mage on the party. However, we soon realise that Frieren, being an elf, lives for much longer than her friends and is destined to a life where all her friends are dying before her, suggesting the title name to mean "Frieren at the funeral". We also soon learn that the elf is still on her own saving the world by continuously killing more demons over the years, earning a nickname "Frieren of the funeral" based on the fact she killed so many. While the correct interpretation is never explicitly stated and the title remains ambiguous, we as readers nevertheless implicitly understand that both meanings are intended (her watching her friends die from old age and attending their funerals, and her killing the demons causing their funerals).

The other type (2) of ambiguity is when one interpretation fairly outweighs the other one in straightforwardness (unbalanced ambiguity). This ambiguity could be commonly found in encoded messages. Grice illustrates this with a British general on a secret mission to capture a province of Sind and needing to send a message back home without enemies noticing the meaning. He writes in Latin *peccavi*, which translated into English would mean *I have sinned*. On the first look this note is quite unambiguous, but someone knowing of the situation realises there is simply no reason for such a message. However, based on the pronunciation of the sentence, we can hear this as "I have Sind" and thus realise the other non-straightforward meaning over the

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[9] In Japanese: 葬送のフリーレン, Sousou no Frieren. (Official in English as Frieren: Beyond Journey's End). *Sousou* being a word for *burial* or *funeral*, and *no* being a possessive particle to the name Frieren.

straightforward one, inferring the general succeeded and captured the province. Nevertheless, because of these overly tilted scales of the two meanings, someone not knowing the situation would probably not even realise the less probable and non-straightforward interpretation (Grice 1991, 313).

Another typical situation where conversational implicature is purposely induced by flouting the maxim of manner is *obscurity*. When there is a child in the room and the adults are trying to converse about topics that are unfit for the child to hear, they will purposely use words that are not clear so that the child will not understand the meaning while hoping the other party can. By being obscure and not explicit about their wordings, the speaker is also implicitly stating that they wish to avoid others understanding the true meaning except for the one particular communication partner.

Lastly, we can flout the maxim of manner by *not using brief* and *straight to point wording*. We could state: "She was creating something akin to flowers.", instead of saying "She was drawing flowers". We are breaking the maxim of manner by not speaking briefly and clearly. But just the fact that we avoided word *drawing* and even added unnecessary *something akin to*, creates the implied meaning that she is terrible at drawing without being explicitly rude (Grice 1991, 313).

Through thoroughly explaining how each maxim can be flouted in practice, we showed how a strategic non-standard conversational implicature is being created. While all three previous examples of implicit meanings (assumptions, logical implication and standard implicatures) are mostly a natural part of speaking and happen not always by intention but are enforced by other factors (like language economization, empiricism, language grammar or cognitive thinking), the non-standard implicature is a strategical act of exploiting the expected maxims in conversation on explicit level yet fulfilling them on an implicit one.

We will now in more detail expound upon how exactly can we strategically use implicitness, or on the other hand over-explicitness to cause the intended inference in the listener.

3   Deliberate uses of inference

As we mentioned before, people do not always rely on listener's inference ability just because it is easier to not specify every detail or because they have assumptions of what is needed to be said against what is obvious. Sometimes they can purposely use the fact that by being unclear, they force listener to infer the meaning on their own.

Let us have a situation where a speaker must answer a question but doing so would be too risky for him. If the speaker carefully analyses the situation, he can safely pick words that are ambiguous enough to mislead the listener to incorrect interpretation. These practices can be surely quite important in politics for example. The intention can be however much less malicious

or politically driven; we can consider how many popular literature books end with open endings or unclear messages. They purposely leave their phrasing ambiguous to make sure each reader interprets the ending differently on their own internal values and knowledge. To some degree we already covered this while explaining non-standard conversational implicatures and indeed the principles of such implicatures will be one of the vital causes for most of the specific uses we will go through in this chapter.

How often are we even as people purposely unclear with our words, making sure not all listeners will interpret our message the same way? Imagine being in a room full of people, wanting to convey something to a friend. We know this friend has a knowledge of certain nicknames, so we purposely use words hinting at those nicknames. This will ensure only this friend can reach the intended interpretation while everyone else in the room can be safely diverted to a different inference because to those nicknames. The usage of obscurity as Grice called it is in use here (Grice 1991, 313).

Let us however for once take a closer look on not obscuring or being ambiguous but instead on being specific in a way. For this reason, allow me to introduce two categories of specifying and try to explain why exactly are we putting them here and what lead to this particular categorisation. It is also important to note that while we suggest here two categories, we are not standing them in opposition. The more expected relation would be that they are complementing each other, as often by being more or overly specific and repetitive with our words, we can strengthen contextual effects by deepening the context (see chapter of Relevance).

3.1   Specifying with words

As we explained much earlier, a speaker is the one carrying the burden of choosing his words so that his listener reaches intended interpretation. This can signify the speaker can purposely use words to ensure his listener will reach a particular interpretation he wants as well. Not always by emitting words or being ambiguous as we showed in previous chapters, but instead by adding words and being overly precise.

There was quite a particular study done showing just how a simple different wording can affect the interpretation and thinking of the listeners. In the field of psychology, Karl Duncker (1945, 88) was testing human thinking based on having groups of people solve various problems under various conditions. One of the problems is a famous *Candle problem*. The tested people were given boxes of tacks, candles and matches and were told to attach a lit candle to the wall without having any wax drop on the table below it. The solution was using the tacks to attach one of the boxes to the wall creating a foothold of a kind and then put the lit candle into it. The tests were made in many varied conditions affecting how fast, or if even, the participants managed to succeed (having differently coloured boxes, some extra empty boxes, some boxes filled while some not, having extra non-essential objects at hand, having promised rewards, etc.).

Later, Higgins and Chaires (1980, 348) tried to expand upon these problems with testing how spoken language can affect such solutions. They gave participants one box of tacks, one candle and some matches, asking them to attach the candle with the same conditions as previous testings. For one group they said „Here you have a *box of tacks*, a *candle* and *matches*", for another group they said „Here you have a *box*, some *tacks,* a *candle* and *matches*". Specifying the word *box* as a separate object when there was no need to do so, made the participants of the second group perceive it as something special, an important piece of information, making them focus on the box itself. While the first group only perceived it as a container for the tacks. In the end, the second group was twice as fast in solution and much more successful while in the first group many participants even gave up not figuring out that they can use the box itself as a separate object. If we think about it, nothing really changed semantically about the objects no matter the wording, we still expressed having a box and having tacks, the core meaning was the same. Yet the situation itself made the listeners reach a different result just by specifying the word box and giving it a higher importance in their mind.

Another case of extra specification using words can be their repetition. Let us use an example made by Sperber and Wilson (2006, 197) to better illustrate:

A1: There was water everywhere.

A2: There was water, water everywhere.

By repeating the word, we are adding burden to the processing effort. If we want as a speaker to strengthen the relevance and thus understanding of what we are saying, overly repeating words goes against this. The reason why we do this, though, is to achieve another effect. As we explained before, the relevance is achieved by balance between lowering processing effort and enhancing contextual effect. By purposely sacrificing the processing, we are trying to enhance the contextual effect even more, seeking to evoke in our listener a feeling that simple sentence A1 is not enough to share how much water there was, so we decided for sentence A2. The listener understands that the repetition is there for some reason and infers that he should give more significance to the amount of the water. It could be argued if some languages like Chinese or Vietnamese did this in the past so much that it became a part of their grammar, as doubling verbs or adjectives similarly deepens their meaning (甜得 x 甜甜得, tián de x tiántián de – here we double the word for *sweet* and the meaning changes from sweet to very sweet. Similarly in English people tend to double words like *very very*).

While we argue here that extra specifying with the words to strengthen contextual effect often burdens processing effort in sacrifice, it is however hard to point out what really adds a processing burden or what lowers it. If we look at another example given by Sperber and Wilson (2006, 198) we can compare two sentences:

A1: I have no siblings.

A2: I have no brothers or sisters.

While the sentence A1 seems shorter and easier to process, many would prefer to say sentence A2 in natural communication. The contextual effect, context itself and semantic meaning within it remain the same, so why would some prefer saying the longer version? This may be because of the before mentioned relevance regarding to frequency. Words sister and brother are so many times more frequent[10] that the processing effort may be smaller even with the longer sentence, making us perceive the words as more relevant (in communication we would rarely struggle to think of non-common and complicated words and instead use the more frequent and nicely relevant word to the situation we can think of. Of course, this may differ in written communication, especially in thesis like this where writers often purposely look for more unusual and less frequent words to sound more specific and scientific by sacrificing the processing effort of their readers; though this is not the preferred practice here as this work is purposely written in a way to best help infer).

This all however makes it harder to analyse and properly decide when we are adding the burden, as it all goes back to mental processes of individuals. And while some may feel *brother* and *sister* are more frequent words, in other cultures that do not specify the gender, the word sibling would be more frequent and more relevant to them (we will partly go deeper into this problem in the next chapter with synergetic linguistics and some linguistic quantitative laws to explain the frequency and usage of language regarding meaning and polysemy).

It is nevertheless important to realise that the precise words we are using are one of the options we can use to affect inference of our listeners, as was shown with the original Candle problem.

3.2   Specifying with context

Nevertheless, it is not only the exact words we can use to specify our intention, but we could also instead use the *context* for this. What if we are trying to add some irony or sarcasm to our words? Surely sarcasm and irony only add burden to processing effort for the listener so why not say things frankly in the first case, as we stated until now? One explanation can be the fact that we again want to strengthen *contextual effect* by depending on the context itself.

Let us have a situation where we ask an acquaintance how did their new work go and they answer: „Oh, it was the work of a century!" with a strained laugh. Some people may interpret this as them really having such an amazing job. If we focus on the context in which it was said, their

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[10] Data taken from Books Ngram Viewer on Google comparing the frequency of brother(s), sister(s), sibling(s) on the internet corpus. Available at:

< https://books.google.com/ngrams/graph?content=sibling%2C+brother%2C+sister&year_start=1800&year_end=2019&corpus=en-2019&smoothing=3 >.

tone of voice, their expression, their previous possible complains etc., it is however more probable we would infer this being a sarcasm precisely based on such extreme choice of words. Then why the speaker did not simply say „it was terrible", so we can understand more easily? Why did they not specify it with more extreme words like "It was so, so horrible." like in our previous examples? It is however precisely that by saying the words in contrast and even more burdening the processing effort, that they instead enforce contextual effect far more strongly. We as listeners must again think harder and deeper over the intended meaning, but just having to do this creates in us an impression that the speaker is simply so frustrated that this was the best way to convey their hidden feelings. Let us actually stop for a moment and weight „Oh, it was the work of a century!" against „It was terrible." or "It was so, so horrible." on an emotional level. While being harder to infer and process and being the actual opposite of what the speaker is really saying, the first sentence generally tells us much more on implied level. However, we need to remember that in a different context, this sentence would mean exactly what it explicitly said, and the person could be celebrating a great success.

If we just look at the comparison we did between "It was so, so horrible" and "Oh, it was the work of a century!", we could now argue that if context specifying gives more weight to our intended implied meaning, then the doubling and specifying with words is not even that important after all. And we could go fully back to the start of this thesis where we explained the Jakobson's communication model and remember that even he stated that referential function which is held by context is often the leading aspect in most communications (Jakobson 1960, 353). Nevertheless, as was mentioned at the start of this chapter, we are not putting specifying with context and specifying with words (to an extension a code) into opposition here, but instead say they are complimenting each other, with context often being the leading actor, but not necessarily.

4   Non-verbal communication

Until now we talked about verbal communication, but we need to understand that non-verbal communication is in essence the definition of "*what more is communicated than is actually said*" (Yule 1996, 3). We will initially investigate aspects of non-verbal communication that generally come to mind first, the gestures, and their role in conveying a message. Then we will turn to digital communication, which is becoming an important part of our lives. First we will look at emoji as a bridge between gestures and online communication, finally ending with memes as examples of a possible digital mix between verbal and non-verbal communication using not the speaker's own words, but to a degree pre-determined messages.

4.1   Gestures

The first part of non-verbal communication that cannot be omitted are gestures, as being non-verbal is their essence. It is however important to note that many gestures accompany or complement words, and few can be totally independent from speech (Matsumoto, Hwang 2013). Many of the gestures incur naturally or subconsciously in communication while other may be

intentional. Let us first explain some of the most known gesture types. The gestures we shall cover here are five groups: *self-adaptors*, *beat gestures*, *emblematic gestures, deictic gestures* and *iconic gestures* (Chui 2019, 244).

Self-adaptors are a type of gesture that occur often unconsciously. These gestures involve self-touching and are induced by some sensual stimulus. Mostly they are produced when we are alone without any company, but there are cases when we do them in public. While they are never deliberate, in public many people try to purposely avoid them as they are often seen as rude. While these gestures happen without intention to communicate, in communication they can also convey various information. By straightening our appearance, clothes or hair, we give an impression of being nervous. A simple touch of the nose can indicate embarrassment. Scratching, biting nails or tapping our foot can show stress. While many of these gestures are spontaneous, they can convey a lot of information about us. As the name stands, they are generally self-adapting gestures, meaning we use them trying to calm ourselves, destress, give ourselves confidence and generally adapt to the situation (Genova 1974).

Beat gestures are bound to our speech. They are usually associated with rhythm of our words and are realized by small up and down movements of our hands. While they do not carry any semantical information themselves, they can often serve as a way to emphasize certain parts of our speech (Chui 2019, 244).

Emblematic gestures, or also known as symbolic gestures, are in its essence culture specific. Just like each culture has its language or dialects, emblematic gestures are a specific symbolic system of movements that have their own semantic meanings which these gestures can convey without any words. While many emblems are similar, sometimes even universal across cultures, their form is often different. To illustrate, a quite universal emblem of simple agreement can be a raised thumb in some cultures, but ok sign in other, while the conveyed meaning is the same. Emblems are true and intentional body language with each symbol having its clear meaning, with many of them being devoted to obscenities and insults, possibly because gesture is less rude and explicit than saying such out loud. Emblems are essential in communication as they also help to communicate in situations where sound would be harder to convey; as it is, many sports have their own emblems which referee uses to convey a meaning. In military or some other sports (like baseball) a created emblem can be used to stealthily convey a meaning without opponent's understanding. But as mentioned before, they are highly symbolic and culture specific. Not only that one meaning can have different gestures in different cultures, but also one gesture in itself can mean different things. The previously mentioned OK sign in America symbolises money in East Asia but can also have sexual implication in other cultures. While these gestures can be used to convey a wide variety of meanings without words, we need to be careful where we use them. When traveling to another country, it is not only language that should be studied but also these emblems as their meanings are usually firmly rooted and used in common communication (Matsumoto, Hwang 2013).

Spatial gestures are a type we have yet to mention. They are a bigger group of gestures that focuses on directions, referencing and pointing out. In languages in general, there are not many words to properly indicate the three-dimensional spatial situation. We have many words to explain quantities, but it is hard to indicate a direction, especially as directions change based on the person's own current position. For example, describing a map and relation of its cities to each other just using words would prove to be difficult and confusing, while using our hands to directly show their positions and distances makes things much easier. These gestures convey spatial semantic meaning by shape, placement, speed, or motion trajectory of the hands. The reason we did not specify the spatial gestures in our initial list is because these gestures are generally divided into two groups on which we will focus individually: *deictic gestures*, which indicate an object in the space, and *iconic gestures*, which indicate an aspect of an object or some action. However, while this is a typical categorisation, there are cases when one gesture can be both deictic and iconic. The given case can be a situation when we are saying "Pull the rope here", while gesturing the pulling movement with our hands. The gesture both shows the way to pull (iconic gesture) and a place where to do the pulling (deictic gesture). Omitting this possible combination of both types would emit a decently sized group of thus unspecified gestures (Atit et al. 2003).

The *deictic gestures* are usually known as pointing movements that indicate an object in a concrete world. They use the exact location and refer to exact object. Pointing to objects is also one of the first types of communication small children learn in order to refer to unknown object. To analyse deictic gestures, a test was created where participants were asked to introduce a specific map's situation to an examiner as if he was a student with only basic knowledge of the topic. The participants were told this is a test to determine how people perceive the geologic maps regarding teaching and reasoning, gestures were not mentioned at all. The sessions were recorded and later the gestures were analysed. While pointing is known as a staple example of deictic gesture, out of all the spatial gestures that accompanied the introduction, on average only 12 % were analysed as pointing, while 21 % were tracing a line with finger, another deictic gesture. Most of the remaining spatial gestures signifying a form or action were iconic (Atit et al. 2003).

Iconic gestures are a very special category. While referencing to spatial situation and being directly connected to speech on semantic level, their meaning is conveyed mainly through context. While these meanings help convey the aspects of an object or action, on their own they are almost impossible to understand. A test was conducted between students at National Chengchi University, Taiwan. A situation was recorded where a teacher was saying that his students wrote wrong information on exam paper than what was expected. He enhanced this situation by gesturing a paper, indicating holding a pen and writing some characters. This video without any sound or context was then shown to students who tried to interpret the gestures. Only half of the students interpreted the hand movements in relation to writing, some even suggesting cooking. The same video was then presented to another group of students, but this time they were told the participants were talking about street-dancing, a completely different context than the original one. Yet, most of the students now interpreted the hand movements in

relation to explaining dance moves, with only one fifth now saying the gestures show some kind of writing. This provides evidence that iconic gestures are closely related to the situational context (Chui 2019, 245).

Another analysis was done to determine how often we use gestures in general (the testing was done in Taiwan and the results may differ for other cultures). 224 minutes of natural conversational excerpts were taken, and 6383 gestures were analysed between participants. 65 % of the gestures were beat ones and self-adaptors. However extra attention was given to iconic gestures for their close relation to semantic content of a speech, while also being characteristic for being challenging to explain without such given speech (as we explained with the test on student groups). This led to a question to which extent do such gestures convey a new meaning in the communication, and to which do they only enhance or convey identical meaning as the words they accompany (Chui, 250).

Another testing was done for iconic gestures alone where several one-hour long conversations between friends or family members were recorded, with free topics. The gestures were then examined from semantical view and compared to the speech they accompanied. The semantically different gestures to speech were then divided into nominal concepts and verbal concepts. The results can be seen on the two tables along with total numbers of such cases:

	Speech		Gesture	
Quantity	16	35.6%	–	0.0%
Activity	7	15.6%	9	23.1%
Possessor	6	13.3%	–	0.0%
Trait	6	13.3%	–	0.0%
Shape/size/length	3	6.7%	21	53.8%
Bodily location	2	4.4%	6	15.4%
Sequence	2	4.4%	–	0.0%
Color	1	2.2%	–	0.0%
Material	1	2.2%	–	0.0%
Value	1	2.2%	–	0.0%
Metaphor	–	0.0%	3	7.7%
Total:	45	100.0%	39	100.0%

Semantic information about nominal concepts[11]

Based on these results we can see what information gets conveyed through gestures beyond the meaning of words. Regarding nominal concepts, compared to speech, gestures are drastically prevailing in conveying shape, size or length of objects compared to doing so using words. Gestures for indicating bodily location also prevail. Another significant group are actions

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[11] Chui, K., 2019, pp. 252.

(e.g. while talking about live band, the existence of a keyboard player was gestured by speaker's hands playing the keys).

		Speech		Gesture	
Motion					
I	Manner-path	3	3.1%	–	0.0%
II	Manner	6	6.2%	4	4.1%
III	Direction	–	0.0%	5	5.2%
State					
IV	State	13	13.4%	–	0.0%
V	Theme	–	0.0%	9	9.3%
VI	Metaphor	–	0.0%	4	4.1%
Action					
VII	Action	75	77.3%	–	0.0%
VIII	Manner	–	0.0%	57	58.8%
IX	Theme	–	0.0%	8	8.2%
X	Effect	–	0.0%	3	3.1%
XI	Means	–	0.0%	3	3.1%
XII	Location	–	0.0%	2	2.1%
XIII	Cause	–	0.0%	2	2.1%
	Total:	97	100.0%	97	100.0%

Semantic information about verbal concepts[12]

Meanwhile for verbs the overwhelming number of gestures were used for conveying a manner, or how a certain action was happing (illustrative examples of given gestures accompanying speech are opening the window, tossing an object, pressing a button, putting on clothes, etc.).

This experiment shows us that even gestures that are semantically bound to speech can contain extra information in communication that is not conveyed through words. As it is, based on the results of this experiment, semantic redundancy was shown only in 26% of cases on average, while in 64% percents the iconic gestures conveyed a new semantical information (Chui 2019, 258).

The provided experiments all show us that gestures are an important part of communication and while some have clear symbolic rules and intentionality to them (emblems), many of them are spontaneous, without any clear coding and are often context dependent. It is through the context, actual communication, and empirical knowledge that we can infer their meanings.

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[12] Chui, K., 2019, pp.257.

4.2   Emoji

With the rise of internet communication, many researchers ventured to analyse particularities of online communication. One of such particularities are emoji. Emoji are a phenomenon that just a bit over 10 years ago was not unavailable outside of Japan but then spread like wildfire with well over 90% of online population being active users (Gawne, McCulloch 2019). Clearly there is a reason for its immediate expansion, signalling that emoji are something people had a need for in online communication. One of the possible explanations being, that emoji fill a gap that is created by absence of gestures, tone of voice or body-language in physical communication. Analysis was done on a corpus of emoji to figure out if emoji act like words in online communication and if they follow a grammar like language does, with results saying they do not. Meaning their function is not that of a speech, but they instead accompany it. To this a theory that emoji act like gestures was raised, specifically correlating them to beat gestures, based on the high level of repetition of emoji in communication (Gawne, McCulloch 2018, 4).

Similarly to how we discussed that gestures are not redundant but most of them carry a new semantic information, it was also discovered that about 66% of emoji are not redundant but carry some new information (Gawne, McCulloch 2019, 4). Not only do the emoji help us convey our tone of voice or expression by sending a picture that shows an exact face to express our intention, but they also emphasize our words just like gestures do. While beat gestures are used as best comparison for their repetition in communication, emoji also act like other gestures, such as emblems. In many cultures a specific object can have an alternate meaning, typical example of fire emoji symbolling that something was great or hype; or an emoji with sunglasses symbolising the stereotypical cool vibe. There are even deictic emoji, showing pictures of hands and their directions (e.g., used when we want to point at the message above us to show we agree, or that the topic was already mentioned referring to it). All these correlations are what acquired emoji a needed position in digital communication, attributing them a name of *digital gestures*.

4.3   Internet meme

Another big part of online communication apart from words and emoji, are internet memes. Before diving into explanation of internet memes and their uses in communication, it is only appropriate to mention how the term got originally created.

Richard Dawkins, a biologist, was focusing on a view of genes as central part of evolution (2006[1976]), in his book he argues that since the heritable information comes directly from genes being passed from one individual to another, the gene is a selfish part of the mechanism that is trying to reproduce itself into another generation. He then tries to re-apply this theory, particularly to cultural transmission. To prove his point, he first gives an analogical example on group of saddleback birds on islands of New Zealand, who sing nine different variations of a song based on their close surroundings. Dawkins however explains that culture is not shared genetically but instead by *imitation*, as sometimes there is a mistake made in one part of the imitation (wrong melody, wrong tone, more repetitions), which leads to creation of a new song

which then gets spread into surrounding as a new version. While observing eight different groups of the same type of male birds, he noticed that most of them can sing one or two versions of the song, similar to how people speak in dialects. When a new alternation of the song was successfully transmitted to a new generation, the so-called cultural mutation was created (Dawkins 2006[1976], 189).

Dawkins argues that in a similar fashion human language is another case of this cultural transmission; but this applies to all aspects of culture; fashion, customs, traditions, technology, architecture, etc. This all is part of an imitated transmission that is not genetical, but is acting in an analogical way to genes. This led him to the need of creating a word that could show similarities to a gene, while also the essential act of imitating something, and created a word *meme* (originating from Greek *mimeme*, which means imitate). He also gives more examples of memes, such as tunes, ideas, catch-phrases, fashion, or way of building something. While genes reproduce themselves jumping from body to body via reproductive cells, the meme jumps from brain to brain via a process that can be called imitation (Dawkins 2006[1976], 192).

While this definition of a meme still holds true in its core, today the meaning greatly shifted to online communication, giving rise to internet meme. In 2022 a brief survey was conducted between students (Slenčková 2022) to examine the current view on memes among university students who grew up on internet. The survey collected a total of 113 responses[13], where 95 % of them answered on the primary question that they know what a meme is. When then asked to give a definition, 83 people answered that meme is a picture/image with funny content, 4 people just specifically said that meme is just a joke. About 7 people viewed meme as some kind of cultural unit that is being shared (similar to Dawkins's definition), while 6-10 people said it is a way to better explain their emotions and communicate. Based on this survey, we could see that general young population shares a view that internet meme is a funny image which they replicate and share to convey a joke[14].

To go through the results in more depth (most questions were multiple choices), almost 80 % of the respondents said they use memes in online communication to some extent, where most common three reasons were: (1) they are funny, (2) they better explain my emotions than words, (3) it is fun to use them. The practice of being fun to use (60 % of respondents checked this part) proves crucial to their sharing and replication, as no one would share something boring. This can also explain why it is mostly fun content that gets shared and mentioned the most. When in contrary asked why respondents do not use the memes, the two prevalent reasons were: (1) I prefer writing, (2) it takes too long to find the correct one for the situation. When asked for more precise timing of when the respondents use memes, the usual answers were: (1) I use them any

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[13] The survey was left open for the sake of access to the survey itself, but the link is no longer shared for more than a year, so any extra new answer to the curret 113 can be counted as originating from readers of this thesis.

[14] Of course, we have to note that results could be different in a different social situation and with a bigger poll of the answers, so this is just an inductive inference, which could be correct and applicable on the whole population, but could also prove to be incorrect on a big scale research.

time I can, (2) when I am making fun of someone, (3) when the situation is funny, (4) in reaction to a meme of someone else, (5) when I cannot find fitting words. The least common answer on the contrary was using memes in sad situations or to explain sympathy (only 9 respondents checked this part). When asked what types of internet memes people use, 80 % answered image and gifs, while 30 % answered texts and phrases, then only 20 and less respondents answered specific emoji, videos or songs as memes they use. When asked what content of the meme respondents prefer, four answers that each obtained over 50 % of the votes were: meme with people, meme with animals, meme with cartoon characters, meme with message. Objects, sounds or logos did not prove to be a popular variant. About 40 % of the respondents answered they also keep their personal collection of favourite memes to use in any situation they need. Popular and less popular memes both proved to be similarly common preference with about 20-30 people stating they like to recreate old memes or fully make up their original ones (Slenčková 2022).

While the survey showed there are about 10 % of respondents who never use memes, some even explicitly stating it bothers them when others use them too much, and that they take too much space in chats, it still illustrates that memes became a vital and viral part of online communication. We often send images or gifs to greet someone in a chat or in a reaction to some situation. As for why do we not rather use words to avoid being misunderstood in case the recipient does not understand the context behind a certain meme, it could be explained through one of the previously mentioned opinions: "they better explain my emotions". It could be true that seeing a picture with clear colours, expression, surroundings etc. better explains our mood than just written words. How many times did someone on the internet mistake us for being rude, or did not catch our irony or sarcasm? Surely everyone has that one friend who never uses any emoji, making it relatively hard to understand their true emotions when communicating.

On the other hand, memes can be used as a subtle way to explain our opinion or comment on the situation. Let us say we are in a group chat with some risky and heated topic and then we decide to send a political meme with some specific politician. The people who know the politician probably have similar knowledge or contextual background and understand our view and point we make. Just by understanding each other we show a deep and common knowledge on the topic. Meanwhile, the others not having such knowledge would be left in the blank, not even knowing we could be openly mocking their opinion.

As it is, memes are heavily dependent on cultural sharing, and many memes are ambiguous enough to get incorrectly understood by people with different social backgrounds or interests. While this can sometimes make the communication more taxing if using memes, there is no rule saying we must use them. Meaning we can only use the memes in situations where we assume the other party will understand. Similarly, we can use the memes we assume the other party will not understand or incorrectly infer when needed. This adds another depth to online communication. Internet memes can be used not only for easier sharing of our emotions and

making jokes, but also to share our stances, knowledge on the subject and opinions to the people of the similar standings, who are *in the know* of the meme's background.

5   External and internal causes for the need of inferring

We already explained what is meant by implicit meanings, implying itself, by inferring and relevance. We also showed how wording or context can affect the resulting inference, and gave many illustrative examples of people implying and inferring. We however never tried to give a clear reason for why people imply instead of being explicit, only hinting at some possible reasons a few times like with the processing effort and frequency of the words. We also omitted explanations under a convenient word of *assumption*. This thesis is however not a proper place to omit explanations just because they may prove to be hard or even impossible to give at the current stage. So, while we still do not have any clear evidence for most of the processes we will discuss here, we can at least propose them as a possible explanation.

We will first focus on *synergetic linguistics* and some quantitative laws like Zipf's Law or Menzerath-Altmann Law, the frequency of the words, their polysemy, length, and usage in general, with possible explanation in cognitive linguistics regarding our communication process.

This will lead us to focus on the *language economization*, a topic which I myself wrote my bachelor thesis about, in relation to assumptions and implicatures, and as another explanation hidden in synergetic linguistics. As assumptions focus on what is said against a background of what is unsaid but taken as given, we will try to explain why such a given is taken in the first case. Why do people omit what they assume is clear, instead of stating it to ensure all participants will have the knowledge on the topic? As it is, while researching materials for the thesis, it was not uncommon to come across examples that did not make sense to a student from Central Europe in the current time as many were assuming the knowledge of American political situation in Sixties. So why do we assume in the first case instead of fully explaining everything? To this we will try to answer using language economization.

Finally, we will look at the external factor of society and thus *sociolinguistics*. We will focus on how different cultures react regarding explicitness and implicitness and with this we will also go into the politeness theory.

5.1   Synergetic linguistics

Synergetic linguistics is a linguistic field that got introduced in relation to quantitative linguistics and its observed empirical tendencies (commonly labelled as linguistics laws). Synergetic linguistics focuses not only on stating a hypothesis and describing the language tendencies as laws, but also tries to explain why such laws exist in languages. It uses a method of deduction to try to reach a cause, and by repeated testing draw some conclusion. According to Köhler (2012, 21), many quantitative theories correctly show the potential to explain, but are often themselves incorrectly considered as explanations. In synergetic linguistics, the explanation from a phenomenon cannot be reached based on a single theory but is instead a combination of

many different theories and aspects that affect each other. Quantitative linguistics try to find, describe, and then explain the observed problem, while synergetic linguistics combine all kinds of such observed and described problems and try to combine them into one comprehensive system (Köhler 2012, 22).

The linguistic theories are not explanations in themselves but only main pillars upon which we can try to base our explanations. In a reality the practice is not only finding and describing laws like quantitative linguistics does but then combine the laws and reach deeper to find a universal explanation and universal linguistic theory.

The first problem is however already in formulating the linguistic laws. We need to discover a phenomenon, build a hypothesis, decide a methodology, collect correct data, and correctly analyse them and repeat for many times. In linguistics the complications start right from the beginning over the decision of sentence or word segmentation. For example, there is no valid method of tokenization for Chinese language and doing a massive corpus manually is too taxing (Liedermannová et al. 2023). Even if such initial difficulties are overcome, there is still a need to test the hypothesis on different languages and correct the rules and re-do the test over again once researcher comes across a language with different system (like the mentioned Chinese or Japanese with its signs in contrast to English with its alphabet). And even when some uncertainties are found, if they are within margin (the generally accepted 5%) the theory cannot be rejected right away either, as languages are living and continue to change over time with each having different tempo of changing. These are all the well-known problems for anyone who tried to do any testing on languages. By finally finding a relatively common tendency and not finding a way to reject this tendency as of now, one can reach a so-called descriptive quantitative linguistic law.

According to Köhler (2012, 24) there are in general three types of linguistic tendencies to be observed. (1) *Functional laws*, with most famous case being Menzerath-Altmann Law, (2) *distributional laws* where the most common example is Zipf's Law and (3) *developmental laws* like Piotrowski's Law, which talk about evolution in time. Since all three categories look at language from different angles, it would prove hard to deduce a universal linguistic theory, which is a goal of synergetic linguistics, just based on one of them (Köhler 2012, 25).

It is only appropriate to briefly showcase some of the linguistic laws we mentioned already just to remind ourselves what are some of the tendencies that were observed and described.

Zipf's law is a general distributive law scholars and students come across when learning about any kind of quantitative methods or statistics in languages. Three basic laws were introduced to us by Zipf. The most famous law talks about frequency and rank of the words. (We mentioned the frequency already when choosing the meaning of the word, and when choosing words itself.)

$$r * f = c,$$

where r is a *rank*, f is a *frequency,* and c is a *constant*. This law tells us that the most frequented word (rank 1) will have double frequency of the word on rank 2, triple of the rank 3 and so on. It shows us a word distribution based on frequencies in languages (Zipf 1949, 23). A similar law showcasing this same tendency is a Pareto principle, which tells us that 20% of the most frequented words end up taking around 80% of the total corpus, a principle greatly used for foreign language learning (Lewis, 2022).

It is quite possible that when we speak and use language in general, we have the tendency to overuse the most common words, making them that much more common in the end, explaining the graph. Zipf himself tried to explain the situation with his hypothesis on vocabulary balance (see next chapter). To better illustrate, here is a graph from study of this law done on 50 languages:
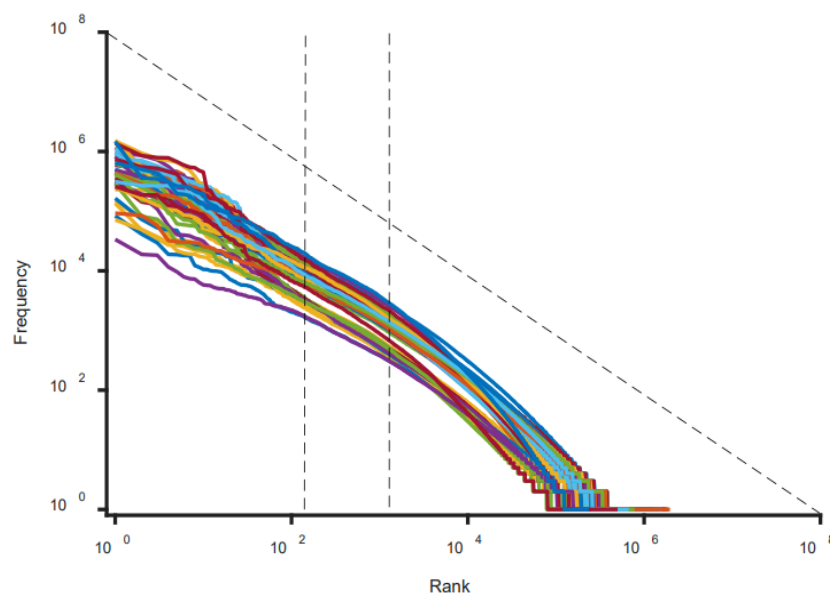

Zipf's law on a sample of 50 languages[15]

The Zipf's law can also be observed on Chinese if done through n-gram method. 1-grams encountered a visible problem as there is a limited number (around 7000) of Chinese characters while their combinations into words are countless, so at one point the line dropped drastically. From 2-grams (which is the standard length of Chinese word) the law could be decently observed, which shows that at least n-grams can be used when the word tokenization method fails (Xiao 2008, 40).

Not only that, the second Zipf's law shows us that words with more meanings are more frequent ($m_r = \sqrt{F_r}$, where *m* is *number of meanings*, *F* is a *total amount* of all the word's *tokens* and *r* being the word's *rank*). This illustrates the polysemic side of the lexicon. In other words, the more meanings a word contains, the more probable it is for the word to be very frequent (Zipf

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[15] Yu, Xu & Liu 2016, 6.

1949, 27). This could add to further enhance the distribution theory and its following vocabulary balance theory. This law again however meets with many problems. First problem are words with grammatical function; while in English it could be only few instances like *a* and *the*, in Japanese it is actually a big portion of the vocabulary with over a hundred words known as particles (postpositions), which often only carry a function which makes them very frequent despite often not having any meaning at all. I, however, did not come across any testing of this particular law on Japanese to enforce the point we are making here. The second problem is telling how many meanings a word really contains. Vocabularies can be investigated to find the main meanings, but there will be many more a researcher may not even know, and they could also be in different frequencies based on the area, dialect, history, culture, and even social groups. To a certain degree Zipf avoided this problem by not illustrating his graph on exact ranks but only on ranks averaging in thousands (used on a dictionary of 20000 most frequented English words); meaning slight differences in the numbers of meanings did not affect the graph in details, which resulted in a decently illustrative tendency. While it is hard, and will probably continue to be, to fully test this law in practice, we can expect it to some extent exist in all languages, as even logic tells us that a word with only one meaning will be less used than a word containing multiple (more in next chapter; also see Slenčková 2021). To however at least illustrate the graph created by Zipf's own testing:
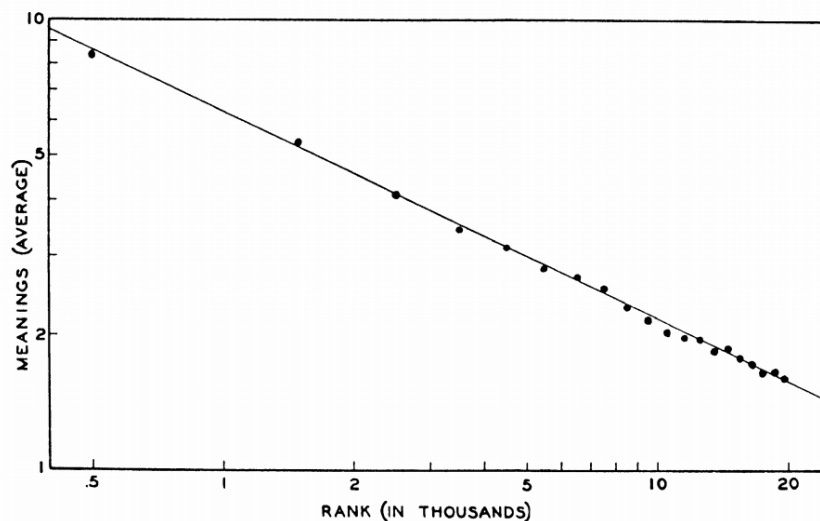
Zipf's distribution of words based on their meanings and frequency rank[16]

There were even more tests supposing there exists a link between the length of the word and its number of meanings (based on both the previous laws), and a noticeable tendencies that more frequent words are shorter, and more frequent words have more meanings arise. This leads to a final deduction that shorter words have more meanings (Köhler 2012, 22). We are however again lacking evidence for this hypothesis given its complicated nature of testing.

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[16] Zipf 1949, 30.

Another law we will briefly introduce is Menzerath-Altmann Law. The basis for the law was set by Menzerath (1928), who noticed on German language that the longer a word, the shorter its syllables tend to be. This first idea was later turned into a more complex theory by Altmann (1980, 1), who set a descriptive law of "the bigger the language construct, the smaller its constituents". In practice this means that the longer the words, the shorter will be syllables, and the longer the sentence, the shorter will be its words. This tendency was tested on many languages over the years, and a language that would reject this is yet to be found, with each finding only adding to its possible correctness.

The important part is however that Hřebíček (2002, 18) expanded upon Menzerath-Altmann law even further by saying the law is applicable on a whole scale of communication (though we need to mention his tests were done only on written texts). According to Hřebíček, in communication exists a broad context (which acts as a construct) and a narrow context (which acts as a constituent). The bigger the broad context for any lexical unit, the smaller will be its narrow contexts; or in simpler words, the more occurrences a word can have across a certain corpus, the shorter will be the instances (sentences) in which the word will appear. While on the first look this does not seem like a significant step for this thesis, if we try to understand the implications of this finding on a deeper level, we reach multiple revelations. If, for example, we use a really common word, with a really broad context, we can expect our listener will also have a knowledge of a big portion of its broad context; the listener will understand the word's general meaning, its applications and even know situations when the word is used and how it is supposed to be understood; so when we use the word ourselves, there is no need to explain much as the sentence can be kept short because the broad context already explains most of it for us. If this theory stands true, we could partly explain why we assume what is the expected knowledge; it could be because of knowing the word has a relatively broad context and thus, we can be brief in our own words. It can also explain why sometimes our assumption fails, as a listener may come from different social situation and has no knowledge of the full broad context as we do.

As we said previously, synergetic linguistics attempts to reach a complex cause for the phenomena in languages and Köhler himself also gives us a possible explanation for some of the laws (particularly Menzerath-Altmann) in the field of cognitive linguistics. The term he proposed is the *register hypothesis* model (Köhler 2012, 84). According to this model there is a register (similar to a short-term memory) for language processing. This register must (1) store linguistic components on each level until the processing is completed and (2) hold results of each ongoing analysis (structural relations and connections about components). This register has a limited capacity of what we can store and as the construct (e.g., sentence) grows, the constituents (words) become shorter (and easier to expect due to combinatorial restrictions) to ease on the processing effort. Since this register is limited, we need to restrict how much we say to be able to process it, with subsequent words generally getting shorter (the hypothesis was tested on few languages, e.g., English, and the results showed this tendency).

However, all these laws and their possible explanations, like hypothesis register, vocabulary balance, word distribution and polysemy mostly lead us to one bigger explanation for all these phenomena. Behind all the laws we can feel a certain economic tendency that led to their current state. This brings us to the explanation I once gave in my bachelor's thesis (Slenčková 2021), and that is a process called *language economization*, which I once gave as the main cause for how people naturally act when using languages.

5.2   Language economization

Coming to the term economization of the language, the first thing we need to explain is the used expression itself. There is a common belief in linguistics that language works according to some economic laws (Zipf 1949; Altmann 1980). Many, especially quantitative theories, talk about language as a tool to enable or make our communication easier, with the purpose of being as efficient as possible to save our time and effort. What I once however proposed in my bachelor's thesis is to clear the chaos over the confusingly used terminology regarding this phenomenon. The confusion usually stands between *language economy*, *economics of language* and *language economization* to which an explanation and new definition was created (Slenčková 2021).

Language economy (as Zipf or Altmann call it), similarly to normal economy, should be a descriptive state. It should describe the laws in linguistics, its lexicon, its grammar, its principles and the general usage of words; so in a way we could compare it to a science. It should be the current state of the language situation in a given moment.

Economics of language is an emerging field which focuses on the usage of language as a tool to better the economic situation; meaning the effect of language usage on income, trade, business communication, etc.; and is thus also not what we are focusing on here (as a work from this field we can introduce The Economics of Language by Lamberton 2002).

Our final term, for which we decided here, is the *language economization*. The vital information for distinguishing the term is the self-explanatory *-ation* at the end, suggesting a process. Unlike language economy, which is a given state and description, economization is an active act of economizing (saving) in language usage. It is a process that is happening as we speak in the moment, and it is precisely this process that over years shapes the state of a language (such actual state can we then be described using language economy; it is the situation that many laws, like Zipf's law, are then describing). There are also authors who do use the term language economization, like Köhler (2012), but while he uses the term throughout his book, there is no given definition of what he views under the term at any point.

Zipf in his *Principle of least effort* describes a balance between the *speaker's economy* and the *auditor's economy* (1949, 20), if we however read through his explanations carefully, we can see he does not describe a situation in a time (economy) but an active process that is always

happening as people use language (economization). This feeling of a need to clearly differentiate between these two terms lead me in the past to suggest a definition of language economization:

> "The economization of language is an active act of efficiently using language resources for the purpose saving." (Slenčková 2021, 9).

If we look at all that was explained in this thesis so far, it can be seen that we analyse the inference and implying on given examples with a need of their given, current context. We are looking at active use of language, so we need to talk about active economization here. With this explained, we can now get to *speaker's economization* and *auditor's economization*, as the terms will be called (still in the sense used by Zipf) from here on, and through them try to explain one of the reasons why people do not say things explicitly but often only imply and count on their assumptions.

Zipf considers the principle of least effort as something fundamental for all human actions (1949, 20). That we aways try to do things while saving as much time and energy as possible. The same goes for leading a communication. On one hand we have a speaker who needs to carefully select all the words to properly convey his thoughts. From speaker's point of view there is nothing worse than having a limitless choice of words because choosing the perfect one could take an enormous effort. For the speaker, the easiest would be to have one single word through which he can explain anything he currently wants, not having to choose at all. How easy would it be to simply convey anything we want to say using just a word "be". It could mean anything we want, and we would not need to bother with constructing proper sentences and word choice. This constant effort of trying to use simple and the most common and easy words is what we call speaker's economization (it is probably such tendency that leads to amassing the most meanings into shortest words, as one of Zipf's laws also describes). If we switch the point of view to the listener (auditor), we however meet a contradicting problem. If the speaker only talks using the word "be", as a listener it would be extremely hard to understand what he is trying to convey. Listener wants to hear exact and explicit words to easily understand what the speaker is saying, without going through the effort of choosing the correct meaning hidden behind polysemic words; this is the auditor's economization. One side tries to enhance polysemy, causing a force of unification, while the other tries to reduce it, causing a force of diversification. This creates a *balance in vocabulary* (Zipf 1949, 22) and is considered as a probable explanation for the tendencies that we can see described by quantitative linguistics laws (see chapter on synergetic linguistics).

While Zipf gave much empirical evidence of this balance and testing of his laws, we need to note that we are still lacking concrete and enough data to be able to fully agree with his explanation. Foremostly, most of the tests done, not only by Zipf but also by many linguists, as we can notice by reading through almost any work on Zipf's law, were made on written languages. While Zipf himself uses words *speaker* and *auditor*, his tests were done not on spoken language

but on the written one. As it is, we cannot say with confidence to what degree can his distributional theories be explained through vocabulary balance.

It is nevertheless true that the speaker's economization can serve as a possible explanation for our innate need of assuming and implying. Bluntly said, we are trying to save our time and effort by avoiding being explicit. Instead of choosing precise, often longer words, we use the first common word that we can think of, which has relatively similar or universal meaning, hoping our listener will understand what we want to say based on context. It needs to be noted that this principle works for natural assumptions and implying, not the strategical one, where we purposely avoid being explicit or play with our words.

Some examples to further showcase what we mean could be the use of more common words. How often do we hear someone use words like *excruciating* or *grievous* compared to *difficult*? While the word difficult does not execute the exact nuance we want to share, most people would use that word rather than the other more exact, but less common and harder to say ones. But not only is the language economization evident is choosing shorter or more common and more polysemic words, there are other tendencies like shortening the words. To Illustrate, word *economy* would often be hidden behind *eco*, *doctor* behind *doc*, and even full words like *intelligence quotient* is replaced by a simple *IQ*. Such tendencies from a speaker to economize then slowly integrates into languages giving them then their current form (the balance in lexicon we talked about is part of this).

Ellipsis is also a primal example of omitting parts that are obvious enough from prior stating, general knowledge, or current context. Cases such as "I can speak English, he (can speak English) too." shows how we do not restate the obvious emitted part in brackets. Doing this on a grander scale leads to assumptions where we fully omit all the unsaid background which we assume to be given and thus want to save our effort by not stating it.

This is why we argue that economization is one of the possible explanations for the usage of language on pragmatical level. Examples like gestures and emoji help us better convey extra semantic information that would be especially hard and tedious to explain using words. Just explaining our emotion or a direction using words is much slower and harder that simply send an emoji or point our finger. Similarly, memes help us explain our feelings, intention, knowledge, and stance without having to write our opinions fully out. Implicatures and assumptions themselves are prime examples of economization as we actively avoid over-stating things and skip what should be obvious and context-given. Not repeating the object of the communication is the most common case as all participants already know what the topic is (the example of "What did you do this weekend?" with possible answer of "And you?", which omits all the obvious content.) The also mentioned choice of words, frequency and polysemy are also great illustrations of economization as we generally rely of what is most common and most easy to recall than search for atypical exact words that may take longer to properly express.

But as we mentioned already, economization is vital in considering the non-strategical or exploitational uses of implications, as the strategical ones we expect to be caused more by social situation than natural act of saving. Let us have an example of internet meme or intentional obscuring as possible situations where we purposely aim to not be explicit. One of reasons for this could be to help us keep people without knowledge of the context out of the knowing circle (as mentioned in chapter with memes or in chapter on non-standard implicature). This calls for a need to closely investigate such strategical uses of implicitness.

5.3   Social situation and politeness

As we mentioned several times, social situation plays a grave role in our communication regarding implicitness. Sometimes we obscure our words to make sure others (like children) will not hear what is inappropriate. Other times we avoid certain dangerous topics, opt for irony or sarcasm to share on deeper level with those who know, or fully avoid being explicit to not come across as rude. The topic of sociolinguistics is wide, and it is beyond our means to go through all phenomena in this chapter. We will however at least briefly mention politeness to prove our point on how it affects our communication.

Politeness is a concept covered by many over the years, with several prevailing theories connected to the topic, like a theory of maxims of politeness (Leech 1983) and theory of face (Brown, Levinson 1987). Over the recent years the theory of face is perhaps the most widespread for its easy and universal application across cultures. Aspect of face can definitely play a role in what we are researching here, we are trying to act in ways that will not threaten listeners face, to not come across as rude, the most typical example being disagreement. Often when we do not agree to do something, we will not say so explicitly, instead we may say we have no time or that we have another promise to keep; this is strictly to protect the listener's face and keep their favourable opinion of us, protecting ourselves in the end (as politeness is not only directed to someone, but it is also a way to build and maintain our own self-image; Kádád 2019, 212). It is however important to mention that the concept of face is still only one concept and may not be fully applicable to all prehomena in politeness.

It was for example argued that historical Chinese politeness is better explained through maxims of politeness than concept of face for its strong one-sided nature of elevating others and denigrating oneself (Gu 1990). Historical Chinese norm was to symbolically show the status through the enormous vocabulary of elevating and denigrating terms. When talking about others, term like *great woman*, *esteemed person*, *revered lady*, *wise brother*, your *esteemed opinion* etc. would be used to elevate the other person, their family, and their opinions. While when talking about oneself or of one's own family the terms *humble opinion*, *small person*, *foolish wife*, *useless son*, *worthless person* etc. were used instead. While this practice is close to extinct in modern Chinese, according to researchers there existed few thousands of such specific expressions of elevating and denigrating (Gu 1990; Pan, Kádár 2011; Kádár 2019; while the practice existed in other cultures as well, it was not to this extent). It is clear that when speaking, one did not truly consider others and their families to be the best, while insulting themselves and their families as

being useless. This was just a practice of politeness rooted in a status society (this practice was used on people of higher or same standing, not on lower), and what was said was not the real thoughts of the speaker. For this reason we argue that such politeness strategically affects our use of words, e.g., to avoid being punished or to cotton up the upper class to get what the lower individuals wanted; with the words semantical meaning not fully reflecting speaker's true convictions.

In other East Asian language we can find another interesting aspect of politeness, and that is grammaticalized politeness. While in Chinese the mentioned politeness system disappeared with ideological switch, the politeness in Japanese or Korean remained as they were literally included into the language system itself. The system of honorifics stayed (except for some feudal terms) in both languages as a way to address someone. Not to mention that politeness remained in these languages thanks to their agglutinative nature, where the grammatical and politeness affixes merged as one. Now the most typical and basic speech anyone first learns is actually a polite conjugation accompanying the necessarily used honorific (Lee 1990, Kádár 2019). Expressing such politeness is not a choice but a correct grammatical usage of the language. Impoliteness is the non-standard conjugation full of abbreviations that is actually harder to learn for its irregularity. Similarly, the speakers are not trying to be actively polite and express how they respect the other person, it just became part of a language system.

The term we especially like to examine here are however *low* and *high-context cultures* (Hall 1976). The theory says that all cultures and on a spectrum regarding the amount of context they depend upon. Extreme low-context cultures are word focused. They are set on transferring exact information with great importance to written or said words; these cultures mostly communicate explicitly. The United Kingdom, USA, Germany, Sweeden or Norway could be examples of low-context cultures (Czechia would also incline more to low-context side). On the other hand, high-context cultures depend on context and communicate in more implicit way. They depend more on unspoken silence, and a lot is communicated through gestures, avoiding eye contact or unfinished sentences. Examples of extreme high-context cultures would be Japan and South Korea and many other Asian countries (in Europe, Greece or France incline more to high-context culture) (Hall 1976, 113).

High-context cultures are severely implications dependent. For example in China when commenting on actions of someone else, it is quite common to say only first half of a proverb, knowing the listener will infer the second part and its implied meaning, without the speaker having to explicitly state that the listener is acting stupid or reckless. Another typical case a is disagreement which is usually considered as a very rude taboo. Instead of saying *no*, the practice is to say "I will think about it.". The way Japanese is able to skip most of its words and grammar as we mentioned (page 12) is another extreme example of this context-dependent way of expression. These cultures place a greater burden on listener who needs to interpret, but if used correctly, speaker can use subtle hints, tone of voice, eye contact or gestures to suggest his messages without risking non-intendent participants to understand. It can be used to express

what would be bad openly expressed. While people of these cultures depend on context naturally to a great part, as this is the social situation they grow up in, they are however generally excellent at reading the room and picking on subtle hints and understand most of hidden messages (spoken from experience), while similarly being apt in discreetly conveying what they want.

Through the several mentioned examples we hopefully managed to convey our opinion that social situation is a probable great cause of strategical implicitness, with the goals like: avoid being rude, avoid punishment, protect ourselves, or gain benefits through keeping good relationships. There are of course more examples of particular social situations such as political discourse analysis that could be done regarding moving public opinions. This topic is greatly vast and would require a complex thesis on its own to try and explain at least a better portion of the phenomena.

Conclusion

Our objective in this thesis was to introduce, explore and explain pragmatic aspects in communication that are insufficiently expressed through words alone, and their subsequent ways of interpretation.

In the first chapter we introduced inference communication model as a way to overcome a gap in communication caused both by insufficient language means to communicate our thoughts and by a tendency to count on assumptions and implicitness. We showcased on examples in what situations the code models are not fully explaining the communication process and where a more pragmatic approach is needed. We also analysed how the listener parses with ambiguousness and interprets the messages, accounting for mistakes in such interpretations. We described this on different models of processing the ambiguousness by several authors with their support in conducted eye-tracking experiments, deducing a possible process of such mental parsing.

In the next step we explained the types of implicitness, how each implicitness is triggered in communication and the way to analyse them. All these types were analysed through terms of pragmatic linguistics with importance on situational context in each illustrative example. We covered three types of natural implicitness and one type of strategical implicitness which is caused purposely with intention to strengthen contextual effect (e.g. through irony), avoid risky situation (e.g. through ambiguity and obscurity) or to strategically invoke intended interpretation (e.g. manipulation). How can a speaker affect the interpretation was also covered more in depth in the next chapter on specifying, with illustrative candle problem, doubling the words or irony usage.

In fourth chapter we moved from verbal communication to a non-verbal communication. We investigated different types of gestures and explained in which way do they enhance, complement or create conveyed messages. We also provided results of experiments done by researchers on Taiwan to showcase how much and in which way do gestures add extra meaning. We followed on with emoji and memes, turning to online communication. We referred the theory that emoji are online gestures and a means to help convey additional information where only language is insufficient. With memes we also offered results of a simple survey to see how and for what reason do people use online memes in communication.

Having covered examples from spoken, written, non-verbal, and online communication, we decided to provide some explanations for implicitness or other non-explicit expressions in each of these communications. Based on our analysis, quantitative linguistic models could serve as a base for frequency-dependent choice of words and choice of interpreted meanings. From the Menzerath-Altmann's law we suggested to support a theory of broad and narrow context and how this can to some extent serve as a basis for assumptions, which lead to implicitness. We also gave a register hypothesis theory on account to how our brain has limited processing capacity which affects our choice of words and their length. From quantitative linguistics we shifted to a search of more complex explanation through synergetic linguistics, suggesting language

economization. We explained how language economization works in our theory and how this could be the primary cause for natural assumptions and implicitness. Lastly, we covered basics of social situation and politeness as probable actors behind intentional ambiguousness. We explained how politeness and culture can affect our use of language with special regard to low and high-context cultures.

As a result we have covered our initially set goals of introducing, analysing and offering explanations for what is hidden in communication. Future possible research could be focused even more on actual field research, with analysing communication situations in natural settings, preferably between people from different cultural background. More profound research on language economization would also seem necessary in the future since we use this term as our most probable explanation in this thesis, yet not many works on this topic were published. More detailed research on emoji and memes in communication can also be expected with their growing popularity. Perhaps with the advancement in technology we can also soon have results for listener's mental interpretation and parsing with ambiguousness on a spoken language and not only on a written one.

Hopefully this thesis will encourage such research from other linguists in the future to expand upon pragmatic investigation of the languages. This would prove to be an added value to this thesis.

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