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BAKALÁŘSKÁ PRÁCE

SEMANTIC RELATIONS APPLIED IN THE CODENAMES BOARD GAME

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I confirm that this thesis is my own work written using solely the sources and literature properly quoted and acknowledged as works cited.

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Poděkování

Na tomto místě bych ráda poděkovala Mgr. Petru Kosovi, Ph.D. za odborné vedení této práce, užitečné rady, trpělivost a podporu v průběhu konzultačních hodin.

Abstrakt

Cílem této bakalářské práce je identifikovat sémantické vztahy na základě asociací vzniklých při hraní deskové hry *Krycí jména*. Nejprve popíši samotná pravidla hry a zaměřím se na vysvětlení klíčových pojmů jako je význam slova a idealizovaný kognitivní model. Poté charakterizuji použité sémantické vztahy, teoreticky je popíši a uvedu příslušné příklady těchto vztahů. V další části je kvantifikuji, zhodnotím tendence jejich použití a na závěr vyhodnotím míru úspěšnosti.

Klíčová slova: sémantické vztahy, idealizovaný kognitivní model, asociace, páry slov, konkrétní případy, hra

Abstract

The aim of the thesis is to identify sense relations on the basis of associations that were used in the *Codenames* board game. First, I will describe the rules of the game and focus on the brief explanation of the crucial terms like the meaning of words and idealized cognitive models (ICM). This is followed by the characterization of sense relations, their theoretical background, and respective examples. Furthermore, I will quantify them and evaluate the tendencies of their usage. To conclude, I summarize the success rate of the sense relations.

Key words: sense relations, ICM, associations, word pairs, particular cases, game

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1.   Introduction

In the introduction, I would like to explain the topic of my bachelor thesis that is called *Semantic relations applied in the Codenames board game*.

First, I am going to describe the rules and the principle of the *Codenames* which is a board game created by Czech Vlaada Chvátil. It consists of 200 cards with 400 "code names". The game is for 4-8 players and suitable also for children from the age of 10. The principle of the game is in creating associations between the words, or, precisely speaking, their senses. For that reason, Chapter 3 will briefly describe the approaches of the word meaning and gives the insight into the problematic of different opinions on the characterization of sense. Then the idealized cognitive model will be presented as the crucial concept for it organizes our knowledge about the words.

Since the associations between the words are not random, there is always some relation that arises from the pair of words. Therefore, the sense relations are described in Chapter 5. They are divided into three major groups: syntagmatic, paradigmatic, and an overlap between these two. It emerges ten specific categories which are going to be described with the proper examples from the games that have been played by real participants. Some of them are recurrent and some peripheral which demonstrates the closeness of the relations.

In Chapter 6 of the thesis, I will discuss the success rate and frequency of the relations that were created during the plays of the *Codenames*. It will be described from the leader's as well as the co-player's point of view. The diagram will show us the percentage representation of each relation and the tables will demonstrate the ranking of all of them. The unsuccessful tries are a part of the analysis as well.

The aim of the thesis is to find out which sense relations in the mental lexicon of a speaker are most commonly used in the *Codenames* board game, and demonstrate the frequency of each relation. The success rate of the examples confirms the periphery of the sense relations. My presumption is that the most specific cases will have high success rate in terms of guessing it right, and the most peripheral will fail.

2. Principles of the *Codenames* board game

The principle of the board game is that the players make associations between two words; the word from the mind of the team's leader and the word on the card (the code name). In essence, the point of this game is to come up with the best hint for the words, and to create associations between the senses of words. These associations are going to be described in this thesis.

2.1 Rules

At the beginning, the players are divided into two teams regardless of a number of the members in each team. Players lay out twenty-five cards with words on the table. The aim of the play is to guess words by giving clues. The team has his leader who gives them a clue for the words belonging to the team. The clue has to be only one word but can be a hint for more than one word, that is, the leader says a word, for example "fruit", and a number, for example "three" which indicates the number of words connected to the clue. However, the interest for this thesis is in the relation of only two words – the clue and the word on the card. Who first guesses all words, wins (Chvátil: 2015).

2.2 Analysis of the games

"Crucially, in this setting, only associational information is available" (Felbo, Hofer, Levy, Shein 1). However, the players are influenced by the cards on the table so it affects their utterances. It is not the case when a person would name some random associations to a word. The players often want to connect as many words as possible to one clue which is very difficult, therefore, the pairs of words are sometimes strange and hard to define in terms of sense relations (which is going to be described in detail in Chapter 5.2.2.2). However, the people do not ignore the rules of the game so there must be always some relation between the words.

2.2.1 Principle of the analysis

When the players were playing the game, each game was manually recorded. The notes are comprised of the leader's clue and the words from the cards connected

to the clue. What the co-player says out loud has to be recorded also with the information whether the guess is right or wrong.

The players were native speakers of the Czech language and the board game was also in Czech. I gathered 202 pairs of words that have been used as a material for the thesis.

3.　Approaches to meaning

The relations that emerge during the games are between the meanings of the words. Since the principle of the board game is based on the knowledge of meanings of words, it should be mentioned, that there are different approaches of describing the word meaning. These approaches give different insight to the problem, and will be discussed briefly below.

3.1　One-level vs. two-level approaches

"A major dividing line which separates the semanticists is the question of whether a distinction can be made between semantics and encyclopaedic knowledge" (Cruse 213). The opinion of the existing division is compared to the case of phonetics and phonology. They say that it can be described a massive group of speech sounds but only a few of them carry meanings. This fact is similar to the linguistic level because the diversity of meaning is huge, and only a few of them carry the linguistic meaning (Ibid.).

The linguistic meaning is simpler to form and is connected predominantly to syntax. The encyclopaedic meaning consists of the experiences and knowledge of the speaker which are not based on the language elements but on extra-linguistic concepts. On the other hand, the one level approach claims that all meaning is conceptual and it could not be proved that there is a boundary between those two meanings. They also say that the extra-linguistic level is not necessary (Ibid.).

3.2　Monosemic vs. polysemic approaches

The problem here is the question whether to count more than one meaning of a word. Take the case of polysemy. According to Lyons (1995: 58), "polysemy ("multiple meaning) is a property of single lexemes". In other words, it is characteristic for a word that has more than one meaning. For example, the word pupil means 1) a person who is being educated in school; 2) a black part in the centre of an eye. According to Cruse (2010: 214), "the monosemic view is that as few senses as possible should be given separate recognition in the (ideal) lexicon of a language, and as many as possible derived from these". The point is that it should be recorded only one

meaning despite the extension of it in the context. The other should be counted only as an extension of meaning because the other meaning is only potential. The polysemic approach thus support more than one meaning and claims that all meanings of one word should be counted in the lexicon of a language (Cruse 214).

3.3 Contextual vs. componential approach

If the contextual and componential approach will be compared, the easiest way to distinguish them is to say that the former is external oriented and the latter internal oriented. The meaning from the componential point of view is perceived as a construction of simple semantic elements belonging to a central inventory. Cruse (2010: 215) specified the contextual approach as "the essence of a lexical sense as inhering in its relations of one sort or another with other possible or actual senses." There are also varieties of these approaches that are going to be described below (Ibid.).

3.3.1 A structuralist contextual approach

This approach is invented by Lyons, and he claims that a lexical unit is constituted by a set of sense relations that are made from two items from the vocabulary. The sense is constituted out of sense relations that will be demonstrated in the following example. *Horse* is a kind of an *animal*; the *mane* is a part of the *horse*; *horse* is used for *riding*; a typical habitat for *horse* is *steppe,* and so on. These relations connect the word *horse* with other words hence the whole sense of *horse* is a complex of relations potentially embracing the proper lexicon (Ibid.).

3.3.2 A componentional approach

The smallest linguistic components of sense are called semantic atoms, and they are still examined today because of the long history. In fact, almost every attempt to find an impressive word-meaning fails and gives only simpler semantic units. The only thing this leads to is a 'notational variant'. Although the acceptance of cogency of the feature approach is quite big, there are some dissensions on points which deals with the nature of semantic features, the combination of them or whether all expressions of the word meaning depend on a feature analysis (Ibid.).

Eventually, all approaches see the description of sense in a different way, and so, none of them is now as satisfactory as to be considered as the only valid approach. The thesis gives preference to the polysemic approach since there are cases of polysemy in the associations from the board game.

4.   The definition of ICM

"We organize our knowledge by means of structure called idealized cognitive models or ICM" (Lakoff 68). The name 'idealized cognitive model' indicates it comes from cognitive linguistic. It is a complex unit and uses four structuring principles: "propositional structure, as in Fillmore's frames; image-schematic structure, as in Langacker's cognitive grammar; metaphoric mappings, as described by Lakoff and Johnson; metonymic mappings, as described by Lakoff and Johnson" (Ibid.). To look at the ICM more clearly, it is best to use some examples.

To begin with, some relationships demonstrate the frame which fails to observe the assumptions of a word. 'Bachelor' serves as a great example. The noun bachelor can be described as an unmarried man. However, Popes, eighteen-year-old unmarried boys, unmarried homosexuals, or any men in general who have a long-term relationship without marriage would not be defined as a bachelor, although, they are all unmarried men. There is a problem that the idealized cognitive model takes into account only a society that complies with certain beliefs of marriage which does not include priests, gays, long-term relationships, or boys who are adults but not married. The ICM simplifies the surroundings of an unmarried adult man and as a result, it does not correspond with the real world. There are of course some cases where the word bachelor might be used for an unmarried man (Ibid. 70).

This relies on our knowledge of the world and distinguishing two cognitive models; the bachelor and the characterization of an individual, like the Pope, including what the terms have in common with each other and how they vary (Ibid.).

The cognitive models can be combined and they establish a cluster model. A classic example would be the noun 'mother'. It should be not that difficult to characterize the word mother; it could be something like "a female parent who gives birth to a child". But this does not apply to each ICM of a mother. For instance, the birth model is only one of them; there is also the nurturance model which describes a mother as a woman who takes care of a child, or the marital model saying a mother is a woman who is married to a father. These cognitive models can combine and create the cluster model. However, stepmothers, biological mothers, or adoptive mothers diverge from this cluster and because of the modern era, the clusters expand more and more. There is

not only one criterion for being a "real mother". To be clear, all of these divergences contribute to the concept of the mother. The dictionaries also list other meanings than only the primary (Lakoff: 1987).

The concept of the mother is an unclear one but all of these definitions or divergences belong to the case of the mother and all of them can converge in the ICM of 'mother'.

4.1   A model of ICM

The cognitive models help us to comprehend the whole world, to understand every item included in the world, and to discover theories about the world using a mental space (Lakoff 134). For better illustration, the following picture shows how the ICM of the word 'ape' could look.

ancestor of humans   gorilla chimpanzee   fur   tailless

hominidae   kinds of an ape   physical description

'ape'

animal   living in nature   omnivor

mammal   rain forests   banana   leaves   beetles
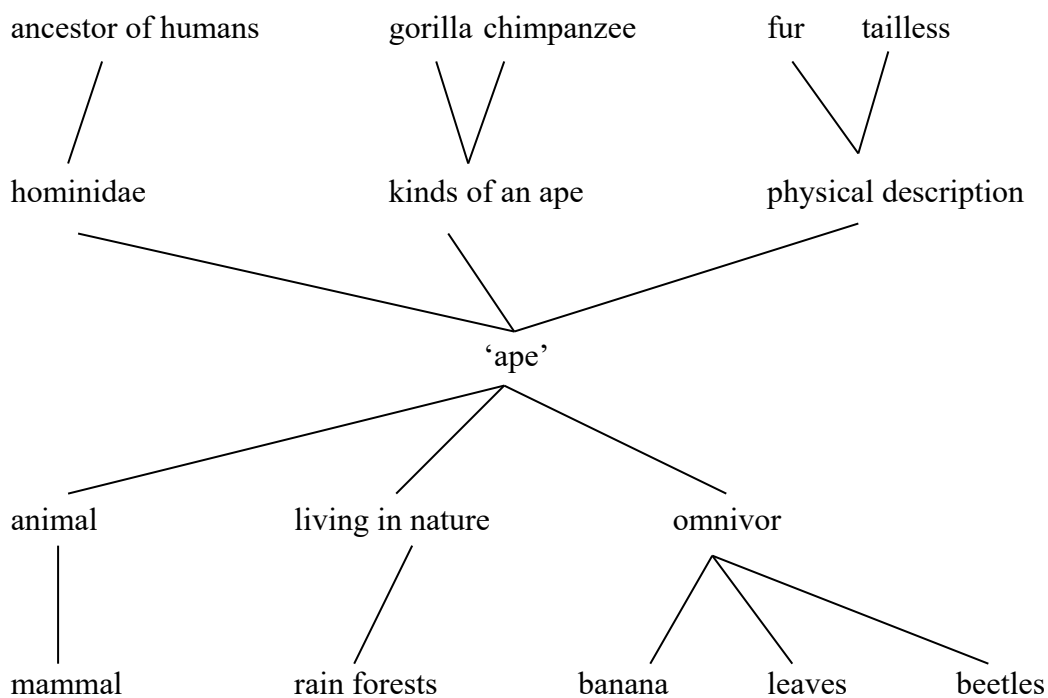
This is just a part of the ICM as it could be much bigger in terms of associations a person could create.

"The conceptual parts of the complex ICM that are chosen for naming purposes may vary from language to language" (Radden Panther 4). This is important to mention because an ICM of a Czech speaker can differ from an ICM of a Chinese.

This following part of the ICM of a noun *chata* 'cottage' will be a good example; the cottage is a typical dwelling in the Czech Republic to go there on weekends. It is used the most often in summer and it is a place where friends meet each other, sitting in the garden by the fire, and singing and playing the guitar. The ICM of 'cottage' would look much more different from the Chinese's point of view, and so, the traditions of different cultures play a major role in creating an ICM.

This principle was used to distinguish the pairs of words into categories. The ICMs were created and then there were essentially two possibilities of what could happen; the word on the card could be a part of the ICM of the clue, or the ICM of each word could overlap. As a matter of fact, two major groups emerge and that being 'the cases within the preview of one ICM' and 'the cases within the preview of two ICMs'. These are then divided into other categories which will be dealt with in greater detail later on.

5. Sense relations

5.1 The definition of sense relations

Generally, sense or semantic relations are relations between two words and their units of meaning. However, some relations are more valuable and interesting, for instance, the relation between *fruit* and *apple* is more significant than between *fruit* and *eye*. In the first case, we can find the relation between those words called hyponymy but in the second case, it is hard to find any sense relation between words *fruit* and *eye*. Therefore, there are some features that make the sense relations more significant (Cruse 129).

Recurrence

The vocabularies of languages are not random collocations of words; they have regularity, structure and tendencies, and they can demonstrate themselves through sense relations. Sense relation is created between two words, so it does not deal with structuring a vocabulary. Sense relations that occur very often in the vocabulary are very scarce. For example, the relation between *fruit* and *apple* is more interesting, from this perspective, than *fruit* and *eye* (Ibid.).

Discrimination

On the other hand, "a sense relation must not only include a significant number of lexical pairs, but must also exclude a significant number" (Cruse 130). In other words, a relation that occurs in all pairs of words is not an interesting one.

Accessibility

A relation that can be easily expressed in verbalized form is more significant than the one which cannot be lexicalized. For instance, the relation between *fruit* and *apple* can be put in a sentence as "An apple is a kind of fruit". This relation is also recognizable by an ordinary speaker from the others which are hard to understand (Ibid.).

5.2 Methodology

During the games, I found many cases of sense relations which are divided into the following categories: syntagmatic relations including collocations and verb valency, paradigmatic relations which were then divided into two major groups: cases within the preview of one ICM including synonymy, oppositeness, hyponymy, meronymy and free cases within the preview of one ICM, and cases within the preview of two ICMs including co-hyponymy and free cases within the preview of two ICMs. There is also a category where the syntagma and semantic relation overlap.

The differences between syntagmatic and paradigmatic relations will be explained in the following chapters, and the syntagmatic relations will be described at first.

5.2.1 Syntagmatic relations

Syntagmatic relation is a relation between two words in one sentence thus there is also a relation which is of a syntactic character. Some utterances in natural language sound odd because of the strange combination of verb and a noun or adjective and a noun, for example, comparing the collocations of *dry sherry* and *striped sherry*. The former does not sound odd whereas the latter does, and that is on the grounds of syntagmatic relations (Cruse 132).

The choice of words that can be put together is limited because the sentence would be incoherent if a speaker could change the words randomly. For instance, in a sentence like *I drank a glass of X*, it is presupposed that *X* is a liquid, like milk, juice, or beer because another expression would miss the coherence. Thus, syntagmatic relations delimit the expressions in the sense of coherence. Conversely, paradigmatic relations deal with a set of possible terms. In other words, there is a set of options of the conceptual area with a cover term, like *liquid*, and a specific term, like *milk, juice, water, wine,* or *beer*. This structuring is significant for paradigmatic relations. Hence, syntagmatic and paradigmatic relations cooperate together; syntagmatic relations define the assemblages of words and paradigmatic relations operate with them (more about paradigmatic relations in chapter 5.2.2) (Ibid. 133).

During the games, there were some cases of syntagmatic relations, and the first group to be described is collocations.

5.2.1.1 Collocations

Collocations are expressions of two (or more) words that are placed together, form a relationship and are defined by the meaning of the words. Some words occur only with certain ones, for example, *a pretty boy* is odd because the adjective *pretty* is used with words of the feminine gender, although it means the same as *handsome.* The fact is that a word can collocate with lots of other words on a semantic level but will not keep company with certain words, and this is determined by three restrictions (Palmer: 1976).

Firstly, some collocations wholly depend on the meaning of the concept, therefore, there is a very small chance of a noun phrase like *green cow*. Secondly, some depend on the range, that is to say, a word is accompanied by words with common semantic features. We know as users of natural language what nouns may be used with concrete verbs or adjectives so it excludes the possibility of *the pretty boy* as *pretty* being used with the female. Thirdly, some collocations are based on neither meaning nor range, but have their own strict sense, for example, the nouns *eggs* and *brains* being used with the adjective *addled* and not with *rotten*. *Addled* refers to *rottenness* when it companies *eggs* and *brains*; it does not mean that addled is a special kind of rottenness (Ibid.).

5.2.1.1.1 Recurrent cases of collocations

The first case to be described from the board game is the collocation of *polární liška* 'polar fox' which is a specific type of fox. It follows the first restriction of the meaning of the word *liška* because there are only some semantically suitable adjectives that will create a couple with the noun. In other words, a noun phrase like *zelená liška* 'green fox' is very unlikely.

The second case of collocation is *hrouda zlata* 'a nugget of gold'. Generally speaking, some words tend to create collocations more often, and so the ability of those words to collocate is very close. In this case, there are not many words that would

collocate with the word *hrouda* 'nugget' in Czech, especially when the number of words that could create a collocation is restricted to twenty-five cards on the table. The closer the ability to collocate is the easier it is to guess the words right.

Another case of collocation is *mořská panna* 'mermaid'. This collocation is a concrete term or a phraseme for a mythical creature from the oceans and seas which is represented by a woman with a tail like fish. It has its specific meaning as a whole, so it has its own strict sense of restriction.

5.2.1.1.2 Peripheral case

There are also some cases of collocation that are peripheral because the relationship between the words is very free. The first case of such collocation is *vydání* and *salát*. First of all, the noun *salát* has to be changed to the adjective *salátové* to create a collocation *salátové vydání* 'tattered book' which is used mostly in colloquial Czech language to describe a book, or an edition of a book, which is in a very poor condition. The collocation *salátové vydání* itself is idiomatic, but still, this accounts as a collocation on the peripheral level because the relation to be researched is between *vydání* and *salát*, not *vydání* and *salátové*. The fact that the noun must be changed to the adjective to make collocation supports the periphery of the case.

5.2.1.2 Verb valency

During those games, there are also cases when the clue is a verb, therefore, these cases would be defined by using syntax. The sentence is divided into predicate which is the verb, and arguments which is the noun (Palmer 107).

Valency deals with the question of how many participants will determine a certain verb. The participants are other clause elements like a direct object, an indirect object, or adverbial. Syntax differentiates five valency patterns:

a) intransitive pattern: subject + verb

b) monotransitive pattern: subject + verb + direct object

c) ditransitive pattern: subject + verb + indirect object + direct object

d) complex transitive pattern: subject + verb + direct object + object predicative or subject + verb + direct object + adverbial

e) copular: subject + verb + subject predicative or subject + verb + adverbial (Biber, Johansson, Leech, Conrad and Finegan: 1999).

The patterns consist of the clausal elements also called constituents. The central element is the verb or the verb phrase for it describes the action or state of other constituents, and it also controls them in the sentence in terms of the verb valency. The verb is always a clue for a word which is another clausal constituent to be distinguished in terms of finding the relation between the words. Such elements are subject, object or adverbial, and they evince a number of features which are going to be described.

Subject

a) The subject is a noun phrase.

b) When the subject is a pronoun, it is in the nominative case.

c) The word order is S + V + ... so while other elements follow the verb, the subject does not.

d) The subject is an agent of the clause because it participates the most in the action of the verb phrase.

e) The subject is the main part of the clause in the sense of being the topic of the sentence.

Object

a) The object is a noun phrase.

b) It comes after the verb.

c) When the pronoun represents the object, it is in the accusative case.

d) The object is divided into direct and indirect objects, and the direct object follows the indirect object when occurring in the same clause.

Adverbial

a) The copular pattern and the complex transitive pattern can have an obligatory adverbial.

b) Adverbial expresses time, place or manner.

c) An obligatory adverbial complements the verb and gives it a more detailed meaning.

d) An optional adverbial can occur with any verb regardless of the position in a sentence, and it gives more information about the whole clause (Biber, Johansson, Leech, Conrad and Finegan; 1999).

These features help to decide which clause constituent creates the pair with the verb.

Zašít and *plášť* 'to sew up a coat' is the first case to be demonstrated. For better notion, it is good to assemble the words into a sentence, for example, "Zašívám plášť" 'I sew up a coat'. Afterwards, it is easier to determine which clause elements are the nouns. From the view of a Czech native speaker, *zašít* is the verb and *plášť* the object. The verb *zašít* was also used as a clue for the word *jehla* 'needle' which is also the object. Similar cases were, for instance, *otevřít dveře* 'open the door' or *kopat míč* 'kick the ball'.

Plavat 'to swim' and *kapr* 'carp' is a pair of words that create a verb and a subject. The carp is an agent because the carp has the ability to swim. Similar cases were *stékat* 'to flow down' and *krápník* 'dripstone' or *stékat* 'to flow down' and *svíčka* 'candle'.

As the pair of clausal elements *plavat* and *kapr* was already mentioned, there was also another word that follows the verb – *moře* 'sea'. The clause could be as simple as *Plavu v moři* 'I swim in the sea' so the valency pattern would be subject + verb + adverbial, and so *moře* is adverbial. Although adverbial is the most peripheral clause element, so we could expect, that the chance of guessing it right is very small, the co-player solved it.

5.2.2 Paradigmatic relations

According to Cruse (2010: 131), "Paradigmatic relations reflect the semantic choices available at a particular structure point in a sentence". For instance:

I'll have a glass of juice/ milk/ water/ coke.

There is a set of choices, and the paradigmatic relations use them to create systematic structuring. These words are parts of the same syntactic category which is, in most cases, typical for paradigmatic relations. The relation arises between any members of the relevant syntactic category. Paradigmatic relations are divided into two major groups, and the first is expressing identity and inclusion and the second opposition and exclusion. At first, the former will be described (Ibid.).

5.2.2.1 Recurrent cases within the preview of one ICM

These cases are pairs of words where one unit of the couple is a part of the ICM of the other's and are recurrent denoting they are defined by particular types of paradigmatic relations.

5.2.2.1.1 Synonymy

According to Palmer (1981: 79), "synonymy is used to mean sameness of meaning. It is obvious that for the dictionary-maker many sets of words have the same meaning: they are synonymous or synonyms of one another". That is that we can find a list of words with a similar meaning and thus if some word is unknown for the reader, they can enlarge their vocabulary by discovering the meaning of an unknown word (Ibid.). We can distinguish three types of synonymy: absolute synonymy, propositional synonymy and near synonymy. Absolute synonymy is the first type to be described.

5.2.2.1.1.1 Absolute synonymy

Absolute synonymy is a rare type of synonymy and has some strict rules. In a certain context, if something is true for X, then it is true for Y, if something is false for X, then it is also false for Y. This type of synonymy is very rare because it is hard

to find such words which fulfil these requirements. The following example should demonstrate the difficulty of finding absolute synonyms. It shows a pair of sentences in which one word is relatively more common and the other is relatively less common.

"*big:large*

He's a big baby, isn't he?

He's a large baby, isn't he?" (Cruse 142)

This pair could be a good candidate for absolute synonymy, however, one can find a specific context where the requirement does not function at all (Ibid.).

I did not find any absolute synonymy in my sample and so this fact also proves the rarity of it.

5.2.2.1.1.2 Propositional synonymy

Propositional synonymy is a case when one sentence is entailing another. Take a look at the synonyms *fiddle* and *violin* and their use in these sentences: *John bought a fiddle* and *John bought a violin*. The former entails and is entailed by the latter. However, in some contexts we would rather use the word *fiddle* and in other the word *violin*. There are still some differences in the meaning that we must take into account, firstly, the expressive meaning of a word, and secondly, which expression fits better in which style and field of speech acts. Looking again at the words *fiddle* and *violin*, professional violinists talking to each other would use the word *fiddle* whereas talking to an outsider they would use *violin* (Ibid. 143).

If we look at the example from the game, the first case of propositional synonymy is *jeptiška* 'nun' and *sestra* 'sister'(Klégr 2007: 520). The clue is *jeptiška* and the word players were looking for is *sestra*. If we think of the noun *sestra*, the first meaning of the word that occurs in our mind is probably a sibling which is a girl/woman or a daughter of parents. However, the noun has other meanings in some contexts, such as in the religious sphere, then *sestra* 'sister' is used for *jeptiška* 'nun' who is a female member of a religious community. It is a similar case to the propositional synonymy of *fiddle* and *violin* because the faithful would rather use *sestra* when talking to each other, and *jeptiška* to outsiders.

Another case of propositional synonymy was a relation between Czech words *štěstí* and *klika,* which is an interesting one. The former can be translated as (good) luck, however, the latter is hard to translate in English. The word *klika* in its original translation could be translated as a door handle which in this case does not make any sense in terms of luck. *"Mít kliku"* is in Czech colloquial expression for *"mít štěstí"* (Klégr 322) – in English "You're in luck!". That is the reason why the words *štěstí* and *klika* can be considered synonyms (Ibid. 382).

5.2.2.1.1.3 Near synonymy

It is a little bit difficult with near synonymy because the distinction between near synonymy and non-synonymy is not that clear. However, language users can choose from a group of words which pairs of them are synonyms. They also would not doubt the list of synonyms in a dictionary where most of them are qualified as near synonymy. The function of the synonyms is not to say in which way they differ or contrast with one another but rather in which way they are similar. In some contexts, they can differ, and that is in some way a feature of near synonymy, although the differences must be minor. "Among minor differences may be counted the following: adjacent position on scale of 'degree' [...] certain adverbial centralization of verbs [...] aspectual distinctions [...] and difference of prototype center" (Cruse 145). If we look at the adjectives *big* and *huge,* they serve as a good example of the first minor difference, because *huge* is bigger than *big* and so is (imaginary) higher on the scale of degree (Ibid.).

In the game, there is one example of near synonymy – *balvan* 'boulder', and *kámen* 'stone' (Klégr 193). The word *balvan* is in Czech an expression for a big stone (*kámen*) so the difference between the words is minor, and the aspect of being on the scale next to each other is also fulfilled. The difference between *balvan* and *kámen* is of the same nature as Cruse's examples *fog* and *mist* as they both display a difference in scale – fog is heavier than mist and balvan is heavier than kámen.

Another example of near synonymy is *dům* and *budova* which means 'house' and 'building' in English (Klégr 133). It is a similar example as the previous one as it also follows the aspect of adjacent position on the scale. Another fact is that *dům* is rather used for living but *budova* has other use, like office building, and is connected to the administrative level.

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5.2.2.1.2 Hyponymy

Hyponymy is a very significant relation that structures conceptual fields. It governs a relation between *carrot* and *vegetable*, *piano* and *musical instrument*, and so on. In the relation between *carrot* and *vegetable*, the former is said to be the hyponym and the latter the hyperonym. This relation also represents inclusion. It is important to distinguish what includes what and that resides in seeing the meanings either extensionally or intensionally (Cruse 134).

Extensional point of view means that the class has its subclasses, for instance, the hyperonym *vegetable* is a class and the hyponym *carrot* is its subclass, as well as lots of other subclasses (*cucumber, cabbage* and so on). From the intensional point of view, the hyponym *carrot* is greater in its sense than the one of *vegetable* because it covers the meaning of *vegetable.* To understand this more clearly, the next example will help us. *Mare* has an obvious meaning of "a female horse" and so, the meaning of *horse* is a part of the meaning of *mare.* It is well to remember that hyponymy is a paradigmatic relation, yet it impacts the syntagmatic consequences (Ibid.).

It itself suggests to say that hyponymy is a relation between lexical aspects but that would be wrong. The relation is between construals. As a matter of fact, it cannot be applied that all construals of A, which is a part of the pair of words A and B, are hyponyms of all construals of B. For instance, Cruse's example with the birds will be discussed (2010: 135):

"(i) Birds and other flying creatures. (Includes only birds capable of flight.)

(ii) Birds and other egg-laying creatures. (Includes flightless birds.)"

Both utterances indicate that the X is a hyponym of Y. Thus, birds in (i) is hyponymous to flying creature but not in (ii) (Ibid.).

Hyponyms are transitive which means that if we have three words like *Dalmatian, dog,* and *animal*, then *Dalmatian* is a hyponym of *dog* and *dog* is a hyponym of *animal* and so *Dalmatian* is necessarily a hyponym of *animal*. However, it has to be mentioned that transitivity sometimes breaks down, because it is not always true that all As should be Bs. Looking at the relationship between the words *hang-glider, glider,* and *airplane*, it is obvious that a hang-glider is a type of glider as well as

a glider is a type of airplane. Yet, it would be wrong to claim that a hang-glider is a type of airplane because the former is not a typical glider, and thus it cannot be counted in the category of airplanes. In this case, X is a type of Y, and the X and Y are construals as a result of which two different construals are meant by the word glider. Because of this fact, it is not a prototypical case of transitivity breakdown. The transitivity is applied in some following cases of the Codenames as a crucial feature of hyponymy (Cruse: 2010).

There is a special case called taxonymy which is a subtype of hyponymy. There are classic cases of hyponymy where X is Y entails X is a type/kind/sort of Y, as in *A dog is an animal* and simultaneously *A dog is a type o animal*. Nevertheless, the pair of the sentences *A bitch is an animal* and *A bitch is a type of animal* sounds odd. A bitch only specifies the sex of a dog but does not say anything about the distinction between what is ought to be a dog in the sphere of animals. The taxonym determines the core characteristic of its superordinate. To summarize, the distinction between taxonymy from hyponymy is quite hard.

5.2.2.1.2.1 Hyperonyms

A hyperonym is the superordinate of the hyponym. The first example will be *Kanáry* 'the Canaries' and *ostrov* 'island'. To prove the hyponymy, the words will be put in the sentences; *Kanáry jsou ostrov(y)* 'The Canaries are island(s)' and *Kanáry jsou druhem ostrova* 'The Canaries is a kind of island'. From this point of view, 'island' is the hyperonym of 'the Canaries'. Moreover, *Kanáry* is another name for *Kanárské ostrovy* 'The Canary Islands' so from the intensional point of view, the word *ostrov* is a part of the meaning of *Kanáry*. During another game, *Havaj* 'Hawaii' was used as a clue for the word *ostrov* 'island' which is almost the same case as *Kanáry* plus *ostrov*.

The next case of the hyperonym will be *omáčka* 'sauce' for the word *svíčková* which is a little bit difficult to translate into English because *svíčková* is a typical sauce in the Czech Republic, however, the translation 'cream sauce' will suffice. Again, the same rules could be applied like in the previous example, as *svíčková* being a kind of *omáčka*.

5.2.2.1.2.2 Hyponyms

A hyponym is a subclass of the main class of the hyperonym. There were much more cases of hyponyms than of hyperonyms. To begin with, there is a classic case of hyponymy; *nástroj* '(musical) instrument' and *kytara* 'guitar'. There are multiple kinds of instruments like piano, flute, violin, or trumpet, and a guitar is one of them so that *kytara* is a hyponym of *nástroj*. A similar case being the pair of nouns *kontinent* 'continent' and *Asie* 'Asia' as it is known that there are no more than seven continents on the Earth: North America, South America, Europe, Africa, Antarctica, Australia, and Asia. Thus *Asie* is a hyponym of *kontinent*.

The pairs of the nouns *příbor* 'cutlery' plus *vidlička* 'fork' as well as *příbor* plus *nůž* 'knife' and *rostliny* 'plant' plus *strom* 'tree' obey the same feature of prior cases.

A demonstration of transitivity was also found in the list of the pairs of hyponyms and their hyperonyms. The word *jídlo* 'food' was a clue for three words; *brambora* 'potato', *meloun* 'melon' and *chleba* 'bread'. However, *brambora* and *meloun* are more likely hyponyms of *zelenina* 'vegetable', but *zelenina* is a hyponym of *jídlo* so here the pattern "if A is a hyponym of B, and B is a hyponym of C, then A is also a hyponym of C" is well applied. *Chleba* would be a hyponym of *pečivo* 'baked goods' which is a hyponym of *jídlo* 'food' so here the transitivity also functions.

There was also a case where the ICM of the Czech participants played a major role as in *cizinec* 'foreigner' and *Maďar* 'Hungarian'. From the point of view of a Czech, *Maďar* is *cizinec* so that, this could exemplify that every non-native speaker of the Czech language is a foreigner and the Hungarian is a hyponym of the foreigner.

5.2.2.1.3 Meronymy

Meronymy is a type of relation when one part is not separable from a whole, that is, something is always a part of something else, for instance, *leg:foot, elbow:arm, flower:stem, car:wheel*, and so on. In the example of *leg* and *foot*, *leg* is called the meronym and *foot* the holonym. As well as hyponymy, it is a relation of inclusion, yet it does not mean they are the same relations, although they have some features in common. The simplest way to distinguish these relations is to remember that meronymy is recognized by using the pattern "A is *a part of* B" whilst the pattern "A is

a kind/type/sort of B" is used by hyponymy. For instance, it would be wrong to say that *a carrot* is a part of *a vegetable* or that *a stem* is a kind of *a tree* (Cruse 137).

Another difference is there are no classes or subclasses but only individuals. It is more focused on the fact what the terms share physically (a tree physically includes a stem). To make it even simpler, meronymy can be also described as "if A is a part of B, then B has A/As" (Ibid. 138):

A stem is a part of a tree.

A tree has a stem.

Meronymy in contrast with hyponymy is a much more specified relation. There are many examples that are on the periphery of the relation and even the informants have the arguments both pro and contra. For example, people would be unsure if the pan lid is a part of the pan since it can be bought without the lid. Still, there are some features which contribute to the core cases (Ibid.).

Necessity

"Some parts are necessary to their wholes, whereas others are optional. For instance, although a beard is part of a face, beards are not necessary to faces. On the other hand, fingers are necessary to hands" (Cruse 138). The first example of *beards* means that some parts of a whole are not obligatory to create a unit, and thus it can be declared that some men do not have a beard. Speaking of the case with *hand* and *fingers*, the fingers are the important and necessary parts of a (well-formed) hand. In this way it shows us the necessity. This also applies the other way around, that is, some parts are not necessary to a whole and also can function as a separate unit (Ibid.).

Integrality

Integrality means that some parts are so important for the whole they cannot be separated. According to Cruse (2010: 139), "one way of diagnosing integrality is by judging how easy it is to describe the part as being attached to its whole". In other words, it can be used, with some parts, that X is attached to Y as well as X is a part of Y. By some words, it sounds very odd to say that they are attached, for example, *a finger is attached to a hand*, and this shows the highest level of integrality (Ibid.).

Discreteness

This feature means that some parts of a whole are more discrete than others. In other words, sometimes we can see those parts, which create a whole, very clearly, but sometimes it is harder to distinguish parts from one another. If the part can be separated without a force or moves regardless of the whole, it is clearly divided. If the part is not easily seen as a separate one, for instance, *the tip of the tongue*, it is a more classic feature of discreteness and at the same time stronger relation of meronymy (Cruse 139).

Motivation

Some parts have a concrete function of the thing, and the item could not work properly, for example, a car with wheels and an engine can move on the road, or a pen would not write without a cartridge with ink. Controversially, the case of the tip of the tongue also has a functional motivation, which is, on one hand, not seen at first sight, but on the other hand, also very important (Ibid.).

Parts and pieces

The distinction between "a part of" and "a piece of" has to be made because they differ in meaning. At first, a part could be used with both concrete and abstract entities while a piece only with the concrete one. The piece of the whole which has been damaged must have been a necessary piece of it before the damage. The part corresponds only with the undamaged whole. For instance, *something was smashed into pieces* sounds normal but *something was smashed into parts* does not. In addition, the parts were visible before the damage but the pieces are not. As being said before, a part fulfils some role of the whole but a piece does not have a special function (Ibid.).

Transitivity of meronymy

It has been mentioned that hyponymy is transitive so it could be possible that meronymy is a transitive relation, too. However, meronymy does not always conform to transitivity. Cruse (2010: 141) uses a great example where the transitivity cannot be successful:

"Fingers are parts of the hand.

Hand is a part of the arm.

?Fingers are parts of the arm."

This example is a case of integrality which does not support transitivity.

There is a concept called chain of elements which consists of the tiny, small, big and huge parts creating the whole. For instance, a pupil is a part of an eye; an eye is a part of a face; a face is a part of a head; a head is part of a body. At the beginning of the chain, there is the smallest part and the biggest whole at the end. There is, however, the fact that it could be named even smaller parts than the first item of the chain as well as a bigger part than the last included in the chain. With the sense of intuition, it could be identified how the chain will look like, where to begin and where to stop. By adding more and more words to the chain, it would cause a change of type. To exemplify, if a body will be a part of a family, there is a shift from a thing to a group (Cruse 141).

5.2.2.1.3.1 A part for the whole

As a first example, there is the relation between the words *atom* 'atom' and *jádro* 'nucleus'. The atom consists of a nucleus (and an electron cloud), in other words, the nucleus is a part of the atom. The nucleus is necessary, discrete, and carries protons and neutrons which is functional motivation, so it fulfils the three features of meronymy. Similar case of a couple of nouns, belonging in this category, is *nábojnice* 'cartridge case' and *prach* 'gunpowder'. *Prach* is a part of the *nábojnice* which would not function properly without it.

Poirot 'Poirot' and *knír* 'moustache' will be the next example of meronymy. The detective Hercule Poirot has been always pictured with a black moustache so it could be declared it is a significant and necessary part of the character. Although it is perhaps more common to say that the moustache is a part of a face, Poirot's moustache belongs to him essentially that it works as meronymy with the transitivity of the individuals.

There is a special type of meronymy called ingredients. Take the case of *pizza* 'pizza' and *salám* 'salami'. Even though the pattern like "salami is a part of pizza" is not wrong, it does not sound right, either. It would be better to say that 'salami' is the ingredient as it is used to make 'pizza'. Other ingredients could be flour, milk or

eggs in making the dough of pizza, which are not visible in the final product. Although 'salami' is not necessary to 'pizza', it has an identifiable function such as taste (Cruse 140).

The following example is interesting in the way that it stands for the point of transitivity, or rather that it shows the failure of transitivity. The word *člověk* 'human' was a clue for three other words; *maso* 'flesh', *nos* 'nose', and *břicho* 'belly'. There is a syntagma *člověk z masa a kostí* which could be translated as 'a flesh-and-blood person'. In both languages, 'flesh' is a part of the person which is the way how meronymy is defined. Flesh is a necessary part of a person with an important function of protecting the internal organs so this example does not sound as odd as the other. Take the case of *člověk* 'human' and *nos* 'nose': it is more likely to say that "a nose is a part of the face" than "a nose is a part of the human" even though the face is also counted to the parts of the human. *Člověk* 'human' and *břicho* 'belly' being a similar one; "a belly is a part of the body" would be more likely than "a belly is a part of the human" even though the statement is true. However, the player thought of *programátor* 'programmer' instead of the three words. The fact that the player did not guess it right also speaks for the failure of transitivity. It is a borderline case, but still, it was classified as meronymy.

5.2.2.1.3.2 A whole for the part

A case falling into this category is *cihly* 'bricks' and *zeď* 'wall'. Bricks are the most important parts when building a wall. They are a necessary part of the wall, and the division from other parts could be but does not have to be discreet.

Trn 'thorn' and *růže* 'rose' describe a relation where the former is the part and the latter the whole. 'Thorns' are sharp outgrowths of the stem and their important function is to hurt predators and prevent them from eating the plant. They are even visible and can be also separated from the whole, but with a little harm, presumably.

Another example will be *nábojnice* 'cartridge case' and *pistol* 'gun', *pistol* being the whole and *nábojnice* the part. *Nábojnice* is a necessary part of *pistol* and *pistol* without *nábojnice* could not function properly as it consists of the bullet which fires from the gun after pulling the trigger.

The following example consist of the words *cirkus* 'circus' and *manéž* '(circus ring'. *Manéž* is in Czech a word describing the rounded part of *cirkus* where the performance takes place. This leads to consider it as functional motivation. In English, it is obvious that 'circus ring' is a part of the 'circus' because the word circus is the component of the word. It is also a necessary section of a circus. Moreover, it is hard, or even impossible, to divide it from its whole so the discreetness is on a high level.

5.2.2.1.4 Opposites

This paradigmatic relation is the one of expressing opposition, as the name of the relation suggests. Oppositeness is a sense relation that even a child could recognize in everyday language so it could seem, in some way, that opposites are easy to define. However, the definition of opposites is not that easy, and it has some features to follow:

Binarity

Opposites are incompatibles which means, for example, *X is big* entails *X is not small*. "There is nothing in the notion of incompatibility itself which limits the number of terms in a set of incompatibles; but there can only be two members of a set of opposites" (Cruse 154). That is the reason why binarity is a necessary point.

Inherent binarity

Another feature of opposites is inherent binarity which differs from accidental binarity. For example, there are only single-deckers and double-deckers of buses, and only gas and electricity in terms of what is used while cooking on a stove. Between those pairs of words – *single-decker:double-decker* and *gas:electricity* – the binarity is rather accidental and pragmatic than inherent. On the other hand, when talking about motion on the axis, for instance, there are only two options – *up* and *down*. These two opposites are also logical and are regarded as an example of inherent binarity (Ibid.).

5.2.2.1.4.1 Complementaries

"The following pairs represent typical complementaries: *dead:alive*, *true:false*, *obey:disobey*, *inside:outside*, *continue (V-ing):stop (V-ing)*, *possible:impossible*, *stationary:moving*, *male:female*" (Cruse 154). Complementaries are the most basic form of opposites and prove the inherent binarity the most. As we can notice, the former from the pair is true when the latter is not and vice versa. The first word always applies if the second does not apply. In other words, both cannot be true at the same time, for example, if a subject is alive in terms of living things, it cannot be dead. It must be taken to account that this is true only between particular construals of lexical items. It means that the state of being alive and not dead does not embody entities like vampires. Likewise, if an entity is of a male character, which entails it is not female, it presupposes that it can be distinguished the gender of the entity (Ibid.).

In terms of complementaries, there is only one case of this relation during the game – *válka* 'war' and *mír* 'peace'. The clue is *válka* 'war' and the word that should be said was *mír* 'peace'. It is the case where the feature of inherent binarity applies. The state of war is usually connected to a fight between two or more countries. War entails that there is no peace which means X (*válka*) is true if and only if Y (*mír*) is not. The contrast between these two words was a good idea within the Codenames because the partner guessed it right. One could probably say that the words are antonyms, however, this is not true, and here are the reasons why. The antonyms are gradable, which means, it is possible to say, for instance, *a bit/very/too long* which cannot be applied by the word 'war' or 'peace'. The antonyms also appear in the comparative or superlative, for example, *longer*, *the longest*, again, this does not work with 'war' or 'peace'. A sentence like '*It is neither short nor long*' is possible in the case of antonyms, but by complementaries, it would make no sense to say '*It is neither war nor piece*'.

5.2.2.2 Free cases within the preview of one ICM

Some cases were so hard to define that they do not fall into any of the recurrent relations like synonymy, oppositeness, hyponymy, or meronymy. Still, there has to be some relation as the players observed the rules. The fact that the player created the pairs of words is the prerequisite of the existence of some relationship. In the following cases,

the relationship is that the words occur in the preview of one ICM, that is, the one word of the pair appears in the ICM of the other. It is also the biggest category in terms of the number of the pairs. As it was mentioned, there were lots of cases in this category so the examples that will be described are in some way interesting.

But firstly, it will be described the pair of words which is presumably obvious to be the part of this category – *Sněhurka* 'Snow White' and *jablko* 'apple'. Everyone knows the fairytale about Snow White and the Seven Dwarfs where the princess eats a poisoned apple. Due to this fact, the apple is essentially connected to Snow White and is a part of Snow White's ICM.

Sparrow 'Sparrow' and *Holanďan* 'Dutchman'; these words could seem that they have nothing in common, however, for those who know the movie series of the pirate Jack *Sparrow* called *Pirates of the Caribbean*, it make sense to connect such words. Jack Sparrow is the main character of the movies and the word *Holanďan* is a part of the collocation of *Bludný Holanďan* 'Flying Dutchman' which is the name of the enemy ship against which he and his crew fought in the second movie. Considering this fact, the word *Holanďan* is a part of the ICM of *(Jack) Sparrow*. Although it could look a little bit complicated, this case was guessed right.

Jezero 'lake' and *lochneska* 'Loch Ness monster' built another pair of words belonging to this category. However, this case could be a part of the category under one condition; the ICM has to be created of the lake in Scotland named Loch Ness because it is said that the monster lives in this particular lake, so the Nessie would not be a part of any lake in the world.

As another example, it will be discussed the words *Slovensko* 'Slovakia' and *Bratislava* 'Bratislava'. The capital city of Slovakia is Bratislava so it is pretty obvious that it is included in the ICM of Slovakia. However, this case could also remind us of metonymy. The relation of metonymy is an association between two units based on literal or actual context. The example has its principal of the pattern of 'represented entity for representative' (Cruse 256, 257). For example, *Canada won the 2021 IIHF World Championship*. The word Canada represents the team of Canadian hockey players so Slovakia represents a larger entity for the smaller entity of Bratislava. This is just a reference to metonymy, but it is not a case of metonymy.

The following example is on the border with the relation of syntax as it consists of the verb *obdělávat* 'cultivate' and *vůz* 'vehicle'. However, it would be very improbable to put these words into one sentence or syntactic structure because of the sense of the utterance. It would be odd to say that *Vůz obdělává půdu* 'Land is cultivated by a vehicle' so instead of saying *vůz*, it is more likely to say *traktor* 'tractor'. On the one hand, the word vehicle is too general for such specific activity as the cultivation of land and does not fit in the sentence, on the other hand, the connection between the words *obdělávat* and *vůz* is not complete nonsense for *vůz* is similar to *traktor* in the sense of the means of transport.

The following cases have all something in common; the clue is a kind of a tool for the second word of the pair. For instance, take the case of jídlo 'food' and *trouba* 'oven'. It would be odd to say that 'food is a part of the oven' or 'food is a kind of the oven' so the relations hyponymy and meronymy are out of the question. It also has nothing to do with the synonymous or the opposite meaning. The oven is used as a tool for baking food. Very similar cases were *jídlo* 'food' plus *hrnec* 'pot' and *pizza* 'pizza' plus *trouba* 'oven' because they are also connected to the area of food/ kitchen. The duo of *oběšenec* 'hanged man' and *provaz* 'rope' is a little bit morbid but still, the rope serves as a tool for making a noose. So even in the category of "free cases within the preview of one ICM", there are some similarities that apply for more than one case.

5.2.2.3 Recurrent cases within the preview of two ICMs

Until now, all the relations described were only with the preview of one ICM, but there were also relations where two ICMs of the words overlap at some point. Recurrent cases means that the ICMs of two words were taken to consideration and the overlapped word was also found. However, the relation which was created can be described by a concrete name of a sense relation, for example, co-hyponymy, which is going to be illustrated below.

5.2.2.3.1 Taxonomic hierarchies

The words in our mind are not in some random groups but they are structured. The structure is called the lexical hierarchy and one of its sources is a taxonomic

hierarchy, which is the one with the focus in this chapter. As the name may suggests, the main role plays taxonomy, and the relation is created between lexical items. Taxonomic hierarchy is also defined by the categorization and classification of the things which surround us (Cruse 167-168). An example will be helpful in order to understand what the taxonomic hierarchy is:

```
                              animal

       dog              cat                  horse

 poodle   Yorkshire   Sphynx   Ragdoll
          terrier
```
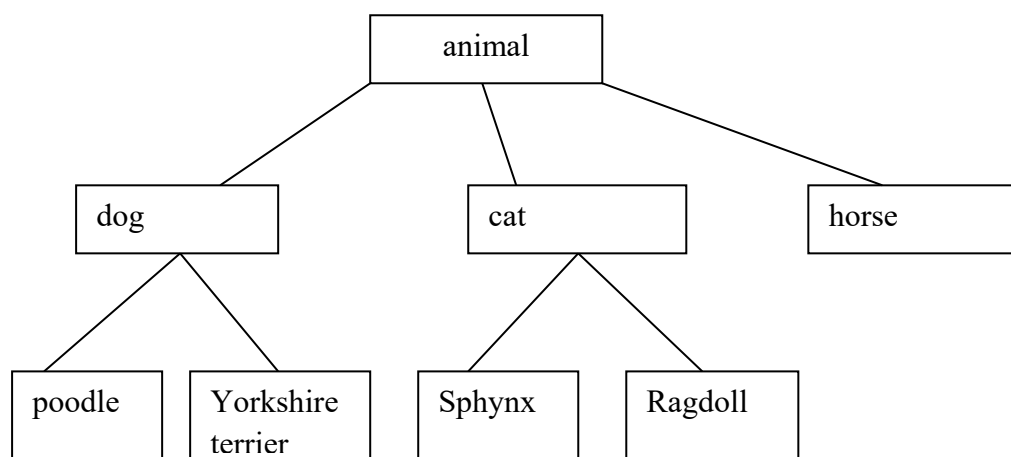
In the picture, there are boxes with words being on the same level, so 'animal' is at level 1, which is also called the beginner, dog etc. at level 2, and poodle etc. at level 3. However, this is just a part of a larger hierarchy, for instance, above the animal, there could be something like an organism. This concrete hierarchy also shows the relation of hyponymy. The words at the same level are called co-hyponyms and that is the main focus for following examples from the board game (Cruse 169).

The case which is very similar to the example above is *krysa* 'rat' which is the clue for two other words *myš* 'mouse' and *netopýr* 'bat'. The mutual hyperonym would be *zvíře* 'animal'. The relationship between them is co-hyponymy. Also *auto* 'car' served as a clue for two words and that being *koloběžka* 'scooter' and *raketa* 'rocket'. They are co-hyponyms of the same boarder of *dopravní prostředek* 'means of transport'.

A little bit more difficult case is the relationship between the words *opice* 'monkey' and *štika* 'pike'. If we imagine the lexical hierarchy, *zvíře* 'animal' would be the beginner and the hyperonym of opice 'monkey' but the hyperonym of *štika* 'pike' would be rather *ryba* 'fish' since a pike is a kind of fish. However, the transitivity by hyponymy works and so we could also say that 'a pike is a kind of an animal' as well as

'a monkey is a kind of an animal'. Due to this transitivity, this case is also included in the category of co-hyponymy.

5.2.2.4 Free cases within the preview of two ICMs

This category is the most peripheral category of all and also the least specific. It covers cases where the main connection between the words was the overlap, in other words, one mutual word was always found in both ICMs. For a better explanation, see the picture of ICM of two different words:

doctor   building   <mark>disease</mark>   <mark>disease</mark>   artery

'hospital'   'heart'

disinfection nurse surgery ward   organ muscle blood
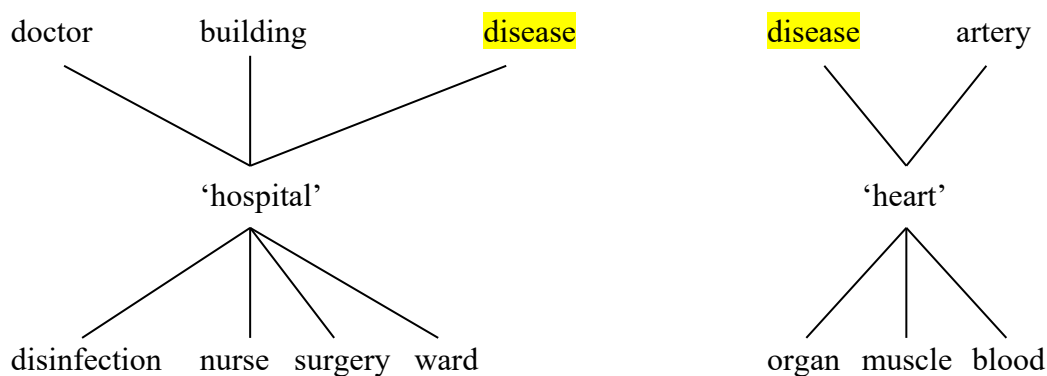
In the picture, there are two ICMs of the words 'hospital' and 'heart'. It is of course a small part of the whole ICM but suffices to illustrate the mutual word of both ICMs and that is 'disease'. This principle is applied to all pairs collected from the game, in other words, the mutual word is the crucial thing to look for. This relationship between 'hospital' *nemocnice* and 'heart' *srdce* is also from the game.

Another example is a couple of *smrt* 'death' and *kyvadlo* 'pendulum'. What the ICMs of the nouns have in common will be presumably the word *čas* 'time' because death delimits the time of being alive and the time is measured with a pendulum of a clock.

The next example will be the words *jeptiška* 'nun' and *televize* 'television'. For those who are not fans of horror movies, it would have been a tough case to guess. *Jeptiška* 'The Nun' is a name of a horror movie, and *televize* 'television' broadcasts movies thus the overlapped word is 'movie'. *Jeptiška* was also a clue for another word which was *tučňák* 'penguin'. Here it could refer to image metaphor, but it does not

belong to the image metaphor due to following reasons. Image metaphor is characterized by the similarity of the visual aspect, or the image, between two units. Taking the pair of *jeptiška* and *tučňák* into consideration, the typical image of the nun is black-and-white clothes, and the penguin is also a black-and-white animal. However, this is not the case of image metaphor because the two words are not connected in that way. Their meanings or connotations could not be compared and the size or the location of the objects also differs (Cruse 249). The only similarity is the colour of the objects, and that was used as the common word for both ICMs.

Stránka 'page' and *knihovna* 'bookshelf'; these two words connect the common word *kniha* 'book'. It could be said that 'a page is a part of the book' and 'a book is a part of the bookshelf', and this construction of a sentence is a feature of meronymy. However, as we know from the previous chapter (Chapter 5.2.2.1.3), the transitivity by meronymy does not work, so it would be odd to say 'a page is a part of a bookshelf', thus it is classified as a free case within the preview of two ICMs.

The case of *cizinec* 'foreigner' and *ninja* 'ninja' is a good example of the importance of the player's nationality. The word which connects these two words is *Japonec* 'Japanese' because ninja is known as a spy individual from Japan. Moreover, Japanese is a foreigner for the Czech, so that it worked in terms of ICM of the players. In other words, the hint 'foreigner' for the word 'ninja' would not work for the national of Japan because 'ninja' is a part of their culture. As the players were all from the Czech Republic, the use of this clue make sense, and also had success.

6. Overlap between syntagma and sense relations

Some relations are neither strictly syntagma nor a case of sense relations hence there is an overlap. In other words, they have features of both syntagma and semantic relations.

6.1 Particular cases of the overlap

There were similar cases where the word *špinavý* was meant to be a clue for two words *obr* 'giant' and *pračka* 'washing machine'. The concrete substantives, giant and washing machine, can be dirty in general, however, the phrase *špinavý obr* 'dirty giant' or *špinavá pračka* 'dirty washing machine' is not considered to be a syntagma in the sense of a collocation, like *mořská panna* 'mermaid'. It is just an adjective and a substantive in one noun phrase which is semantically possible in contrast to, for instance, *špinavá zima* 'dirty winter' which does not make sense. The main relationship is between the ICMs of both words as the part of the ICM of *pračka* will be *špinavé prádlo* 'dirty laundry', and *obr*, as a character of many fairytales, is often portrayed as an ugly creature which tends to neglect their appearance or hygiene thus the word *špinavý* 'dirty' could be a part of the ICM. In addition, the case of *obr* was not guessed right and the co-player said *umělec* 'artist'. The relationship of *špinavý umělec* has the same features as the preceding examples, that is, it is a semantically possible pair of words, which make sense, but not a collocation. Thinking of the ICM of *umělec*, there could be also found the word *špinavý* because some sort of an artist could be dirty, for example, a painter can be dirty because of the paint he uses while working.

Polární 'polar' in the pair with *zima* 'winter' and also with *tučňák* 'penguin' is another case of an overlap. As well as the previous cases, the noun phrase is possible but it cannot be called collocation. Moreover, the adjective is a part of both ICMs of *zima* and *tučňák*.

7.   Evaluation of the data

In this chapter, the gathered data of the plays will be evaluated in terms of a total number of each category, frequency, and success rate. At first, a table will show us the number of all relations in descending order, in other words, no matter if it is a right or wrong guess. Then, the perspective of both the leader and the co-player will be demonstrated also by tables, and it will be discussed whether the tendencies of recurrent and peripheral cases are proved or disproved.

It has to be emphasized that the results of all the tables and the diagram are limited by the rest of the cards which were part of the particular game of Codenames.

7.1   Table of all relations

Total	202
Free cases within the preview one ICM	60
Free cases within the preview of two ICMs	55
Hyponymy	33
Meronymy	22
Verb valency	12
Synonymy	5
Co-hyponymy	5
Overlap between syntagma and semantic relation	5
Collocation	4
Oppositeness	1

Table 1: The number of each relation created in the games

From Table 1, it is obvious that the largest categories are free cases within the preview of one and two ICMs with the difference of only two cases. The third place takes hyponymy. On the contrary, the last place takes oppositeness with only one case.

7.2   Diagram of all relations

The following diagram will picture the representation of all relations, both from the leaders' and co-players' point of view, in percent.
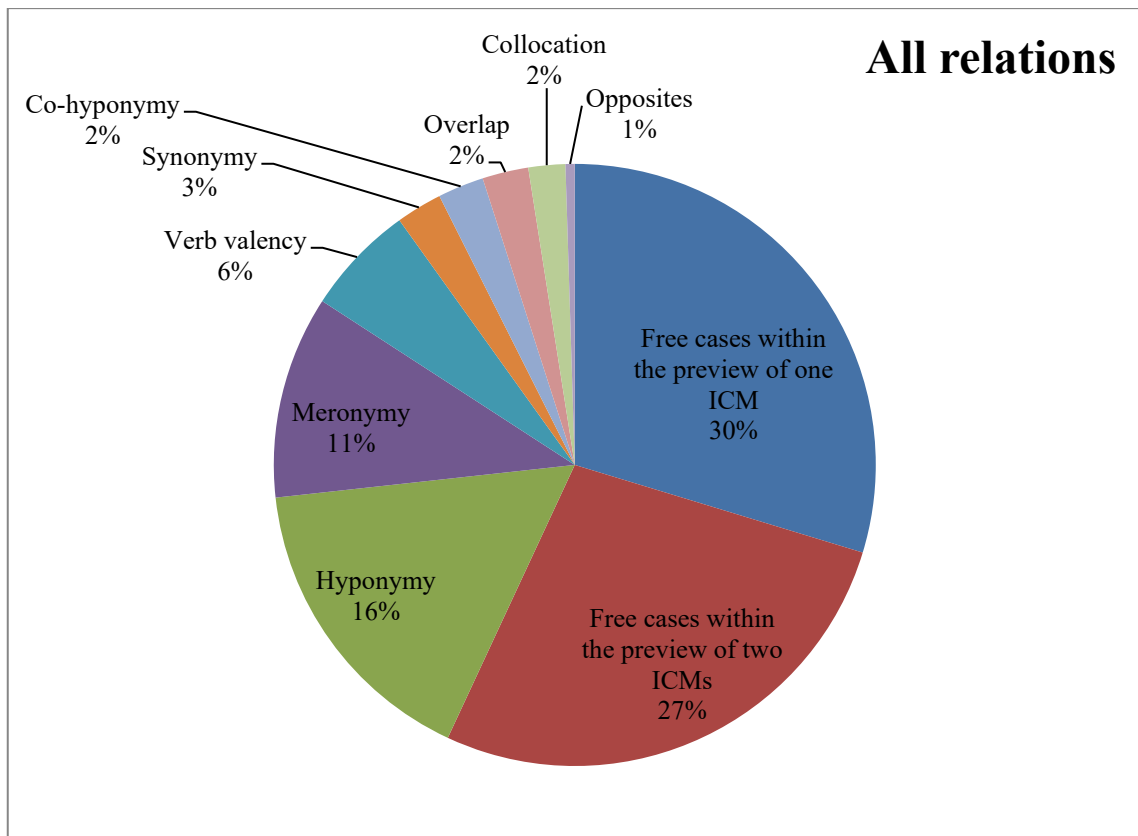
Diagram 1: All relations and their percentage representation

In the Diagram 1, there is the percentage representation of each relation. It shows that more than 50% of all relations are created by the "Free cases within one and two ICMs". Thus the tendency of creating the relations in our brains is on the peripheral level. In other words, these cases are the least recurrent relations in terms of defining the specificity of the relations, however, these types of association are the most frequent in the head of the participants.

7.3 The perspective of the leader of the team

The leaders of all games came up with 175 pairs of relations in total. The following table will demonstrate the number of relations the leaders had created.

Total	175
Free cases within the preview of one ICM	53
Free cases within the preview of two ICMs	41
Hyponymy	32
Meronymy	20
Valency with verbs	11
Synonymy	5
Co-hyponymy	5
Collocation	4
Overlap between syntagma and semantic relation	3
Oppositeness	1

Table 2: Relations of the leader's point of view

If we compare the first table of the number of all relations with this second table, the category "Overlap between syntagma and semantic relation" falls from the eighth place to the tenth position. Other than that, the order stays the same.

In terms of invented clues, meaning the one word which the leader uttered as a clue for the other words (code names), the number has changed to 88 because some of the clues were a hint for more than one word. The following table will demonstrate the number of clues within the word classes in descending order.

Concrete noun	66
Abstract noun	13
Verb	6
Adjective	3

Table 3: The number of the clues in terms of word classes

As it is noticeable from Table 3, the most used words as a clue are concrete nouns and the contrast between the first position with 66 concrete nouns and the second with only 13 abstract nouns is pretty huge. It means that the concrete nouns created 127 relations, for example, the word *jídlo* 'food' was used five times as a clue, in other words, in five different relations. The abstract nouns were the clue for 31 cases. Furthermore, verbs were used as a hint for the co-player, and that was in twelve different cases. Eleven verbs were a part of the cases belonging to the category "Verb

valency" and only one case was a part of the category "Free cases within the preview of one ICM", however, there was an overlap with syntax. As a result, there is a tendency to create syntagmatic relations in terms of verbs.

Adjectives were used as a part of five relations and only two of them created a collocation. The other three cases belong to the category "Overlap between syntagma and semantic relation", and so we could not say that there is a tendency to make collocations while using the adjective or another specific relation.

7.4 The perspective of the co-player

The co-players of all games created all the 202 relations, because, eventually, all of the relations were guessed but some of them on the second or the third try. Therefore, the co-players came up with 27 relations that were not meant to be said from the leader's point of view.

Total	175+27
Free cases within the preview of one ICM	53+7
Free cases within the preview of two ICMs	41+14
Hyponymy	32+1
Meronymy	20+2
Verb valency	11+1
Synonymy	5+0
Co-hyponymy	5+0
Collocation	4+0
Overlap between syntagma and semantic relation	3+2
Oppositeness	1+0

Table 4: The number of the relations made up by the co-players

Table 4 displays two numbers of each category. The former number refers to the relations that were meant by the leaders and the latter refers to the wrong guesses, that is, not meant by the leader. The following table will show us the final ranking of the relations in terms of success rate.

Co-hyponymy	100%
Oppositeness	100%
Hyponymy	94%
Verb valency	91%
Free cases within the preview of one ICM	88%
Synonymy	80%
Meronymy	75%
Free cases within the preview of two ICMs	59%
Collocation	50%
Overlap between syntagma and semantic relation	33%

Table 5: The ranking of the success rate of all relations

At the top of Table 5, there is "Co-hyponymy" with its 100% success followed by "Oppositeness" also with 100% success. The latter has only one case but still, it was guessed right. The success rate of "Hyponymy" is also one of the best with 94%. In terms of failure, there are only two cases that did not succeed, that is, one from the group of hyperonyms and one from the hyponyms. "Verb valency" performs relatively great with its 91% in the case of success rate. Comparing "Verb valency" with "Meronymy", the former is almost 20% more successful than the letter. However, meronymy is used more often than the verb valency. The free cases are the ones where it was dealt only with the ICM of the one word, so no concrete or recurrent relation emerged. Despite this fact, this free relation work exceedingly well. "Synonymy" is in 80% of cases guessed right. However, there are only five cases of synonymy moreover one of the five cases is a failure. The success of "Meronymy" reaches 75%, in other words, ¾ cases of meronymy were guessed right. The success rate of "Free cases within the preview of two ICMs" with its 59% came off, not surprisingly, worse than the majority of the success of other relations. In spite of being the most peripheral relation of all, the success rate is not the worst. The table also displays the 50% success of "Collocation", so this is exactly half-and-half case; two cases were guessed right and the other two not. The worst success rate has the case of "Overlap between syntagma and semantic relation" with its 33% of success. Only one of three cases was guessed right.

Overall, there are two relations on the top with the 100% success rate. Looking at them, they are the most specific one of all the relations, which seems to be the key to the highest success. Except for one relation, "Overlap between syntagma and semantic relation", all of them have a success rate of 50% and more, and also 8 of them were successful at least from 75%. The most surprising thing in a good way is the fact that the relation of "Free cases within the preview of one ICM" is on the sixth place, although, it is not a specific relation like synonymy, etc. I supposed that the relation would be at the end of the table but it worked well. The worst relation in terms of success was the "Overlap between syntagma and semantic relation" which proves the fact that the less specific the relation is the more failure it has.

7.4.1 The unsuccessful attempts

We could also look at the cases which the co-players made up and were not successful, in other words, they were extra invented because they were not the cases the leader meant. It was only 27 cases of 202.

Free cases within the preview of two ICMs	14
Free cases within the preview of one ICM	7
Meronymy	2
Overlap between syntagma and semantic relation	2
Hyponymy	1
Valency with verbs	1

Table 6: Extra cases of the co-players

Table 6 shows in which categories of relation the extra cases belong. As it is written, most cases are in the category of "Free cases within the preview of one ICM". In some of the cases, it also corresponds with the category, that is, for instance, when the leader said a clue that was a part of hyponymy, the co-player said a word that had also hyponymic relation to the clue, like the case of *nářadí* 'tool' and *matka* 'nut'. The reason why it is an unsuccessful case is that *matka* is in the Czech language polysemy which means that the word has more than one distinct meaning. *Matka* in Czech also means 'mother', and this meaning is to be found at first place in a dictionary. Still, *matka* is a kind of *nářadí* so it is a hyponym of the word *nářadí*. However, the co-player rather said *hřebík* 'nail' instead of *matka* because *hřebík* is also a kind of *nářadí* and

presumably more typical representative of the class than *matka*, especially when there is only a limited range of choices from the cards of the board game. Take a look at other examples of the failed cases.

Chata 'cottage' was used as a clue for three other words; *léto* 'summer', *láska* 'love' and *kytara* 'guitar'. The relation between the clue and the first, second and third word falls into the category of "free case within the preview of two ICM" which is the most peripheral relation of all. The co-player connected *chata* with *komín* 'chimney' which is the relation of meronymy. It is more recurrent relation than the previous free cases only using the ICMs of the words and so the co-player rather thought of connection which is not on the peripheral level.

However, sometimes the unsuccessful guess is then categorized in relation that was less specific than the one it was looking for. For example, the leader said *Čapek* 'Čapek' as a clue for the word *robot* 'robot' which is a relation of "free case within the preview of one ICM", since Čapek invented the word robot. However, the co-player said *Venuše* 'Venus' so the pair of *Čapek* and *Venuše* is then the relation of "Free case within the preview of two ICMs".

The couple of *mykóza* 'mycosis' and *nemoc* 'disease' is an interesting one. *Mykóza* 'mycosis' is a kind of a disease and so the word *nemoc* 'disease' is a hyperonym, and so the relationship is hyponymic. However, the co-player rather associates the mycosis with the occurrence of the disease thus connects *mykóza* with *noha* 'foot'. The relation of *mykóza* and *noha* is then classified as "free case within the preview of one ICM".

Another unsuccessful attempt was with the combination of *kopat* and *roh* when the co-player said *brána* 'goal' instead of *roh*. In the Czech language, there is a possibility of saying *Hráč kopal roh (rohový kop)* which means 'Football player takes a corner kick' in English, *roh* being an object. In terms of verb valency, the combination of 'verb + object' is the most recurrent relation (after subject + verb). However, the verb *kopat* has more senses, for instance, *kopat nohou* 'kick' but also *kopat díru* 'dig'. Another fact is that *kopat roh* is a typical expression for the football devotees and is close to the football jargon. It means that only the members of a certain group understand their utterances, so someone, who is not a football fan, would not

comprehend the expression of *kopat roh*. These are the possible reasons that could cause a failure.

Aljaška 'Alaska' and *ostrov* 'island'. For these words, the overlap would be in the word *poloostrov* 'peninsula' because Alaska is a kind of peninsula and the peninsula could be associated with the island, mainly in the Czech language, since the stem of the word *ostrov* ('island') is the stem of the *poloostrov* ('peninsula'). It was not guessed right because the co-player did not accept the possibility that 'Alaska' and 'island' could be connected because Alaska is not an island but a peninsula. The co-player rather said *sekera* 'axe' which also belongs to the category of "free cases within the preview of two ICMs" (the overlap would be *les* 'wood').

8.   Conclusion

The aim of my thesis was to examine the semantic relations in the *Codenames* board game and find some tendencies between them. To conclude, the findings will be summarized.

While playing the *Codanames* board game, the players are creating associations between words. It was recorded 202 pairs of words (and so 202 relations) that were then analysed. The clue for the "code name" has to be related to the meaning of the word, therefore, the main approaches of meaning were presented and briefly described. The idealized cognitive model is integral to the interpretation of which sense relations were found between the words. Moreover, we organize our knowledge through the ICM. The relationships that arise between the words were sense relations that are divided into three major groups; syntagmatic, paradigmatic and an overlap between syntagma and semantic relation.

In the syntagmatic sphere, there are two specific categories called collocations and verb valency. In the letter, there are recurrent cases that are model examples of a collocation, and peripheral cases that partially carry out the characteristic of collocations. In total, there are four collocations. In terms of a success rate, the cases are almost at the end of the table which means they are not very successful. On the other hand, verb valency is substantially a successful relation, and it emerges twelve cases.

The paradigmatic relations are divided into two main groups; cases within the preview of one ICM and cases within the preview of two ICMs. The latter then distinguishes five categories; synonymy, oppositeness, hyponymy, and meronymy, which are recurrent cases, and free cases within the preview of one ICM, which is on the periphery. There are five cases of synonymy, one case of oppositeness, 33 of hyponymy, 22 of meronymy and 60 of free cases within the preview of one ICM. The success rate is between 75-100% which is a great result, particularly for the case of oppositeness with its 100% success and hyponymy with its 94% success. With the 100% success of co-hyponymy, the relations are the top three cases of the ranking. Co-hyponymy belongs to the category of recurrent cases within the preview of the ICMs, and it is recorded five cases of this relation. One of the most peripheral categories is

called free cases within the preview of two ICMs, although it was the second largest category of all. Its success rate is 59% which is the third worst success rate.

The last category to be summarized is the case of overlap between syntagma and sense relations. The cases have in common both features of syntagma and semantic relation. There are five cases with the lowest success rate of 33%.

In conclusion, a variety of relations was found within the records of the plays of *Codenames*. The aim of the thesis was to find which sense relations in the mental lexicon of the speaker are most commonly used in the board game, and to draw the frequency on the basis of the recorded material. The relations were fully described, and the analysis shows the periphery of them. The presumption of the thesis was fulfilled because the analysis of the material shows that the peripheral cases have lower success rate than the recurrent. In other words, the more specific and recurrent the relation is, the better is the success of the guess.

9.   References

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10. Appendix

No.	Word pairs	Sense relations
1)	mořská+panna	collocation
2)	hrouda+zlato	collocation
3)	polární+liška	collocation
4)	vydání+salát	collocation
5)	zašít+jehla	verb valency
6)	zašít+plášť	verb valency
7)	otevřít+dveře	verb valency
8)	otevřít+kniha	verb valency
9)	obdělávat+brambory	verb valency
10)	kopat+míč	verb valency
11)	stékat+krápník	verb valency
12)	stékat+svíčka	verb valency
13)	plavat+kapr	verb valency
14)	plavat+moře	verb valency
15)	kopat+roh	verb valency
16)	kopat+brána	verb valency
17)	jeptiška+sestra	synonymy
18)	balvan+kámen	synonymy
19)	vous+knír	synonymy
20)	budova+dům	synonymy
21)	štěstí+klika	synonymy
22)	válka+mír	opposites
23)	Kanáry+ostrov	hyponymy
24)	Havaj+ostrov	hyponymy
25)	svíčková+omáčka	hyponymy
26)	mykóza+nemoc	hyponymy
27)	pití+limonáda	hyponymy
28)	značení+šipka	hyponymy
29)	Rammstein+zpěvák	hyponymy
30)	doprava+kamion	hyponymy

31)	doprava+koloběžka	hyponymy
32)	vesmír+kometa	hyponymy
33)	technika+robot	hyponymy
34)	jídlo+meloun	hyponymy
35)	jídlo+chléb	hyponymy
36)	jídlo+brambora	hyponymy
37)	nářadí+sekera	hyponymy
38)	rostliny+mrkev	hyponymy
39)	rostliny+strom	hyponymy
40)	zeleň+salát	hyponymy
41)	nástroj+šroubovák	hyponymy
42)	nástroj+kytara	hyponymy
43)	kontinent+Asie	hyponymy
44)	zvěř+los	hyponymy
45)	cizinec+Maďar	hyponymy
46)	příslušenství+klávesnice	hyponymy
47)	materiál+plastelína	hyponymy
48)	materiál+železo	hyponymy
49)	šelma+tygr	hyponymy
50)	šelma+liška	hyponymy
51)	zvíře+ježek	hyponymy
52)	příbor+vidlička	hyponymy
53)	příbor+nůž	hyponymy
54)	nářadí+matka	hyponymy
55)	nářadí+hřebík	hyponymy
56)	Poirot+knír	meronymy
57)	nábojnice+prach	meronymy
58)	les+kmen	meronymy
59)	atom+jádro	meronymy
60)	uniforma+čepice	meronymy
61)	tělo+břicho	meronymy
62)	tělo+nos	meronymy
63)	tělo+maso	meronymy

64)	pizza+salám	meronymy
65)	maso+kuře	meronymy
66)	maso+žralok	meronymy
67)	maso+zebra	meronymy
68)	člověk+nos	meronymy
69)	člověk+břicho	meronymy
70)	člověk+maso	meronymy
71)	jezero+vlna	meronymy
72)	chata+komín	meronymy
73)	cihly+zeď	meronymy
74)	trn+růže	meronymy
75)	nábojnice+pistole	meronymy
76)	příslušenství+telefon	meronymy
77)	manéž+cirkus	meronymy
78)	vydání+kniha	free case within the preview of one ICM
79)	pití+lahev	free case within the preview of one ICM
80)	značení+cesta	free case within the preview of one ICM
81)	Amerika+prezident	free case within the preview of one ICM
82)	Amerika+mrakodrap	free case within the preview of one ICM
83)	Řím+Itálie	free case within the preview of one ICM
84)	Slovensko+Bratislava	free case within the preview of one ICM
85)	Sparrow+Holanďan	free case within the preview of one ICM
86)	Rammstein+Německo	free case within the preview of one ICM
87)	Kanáry+Španěl	free case within the preview of one ICM
88)	Sněhurka+jablko	free case within the preview of one ICM
89)	dovolená+léto	free case within the preview of one ICM
90)	válka+jezdec	free case within the preview of one ICM
91)	jaro+slunce	free case within the preview of one ICM
92)	hluk+nádraží	free case within the preview of one ICM
93)	hluk+dělo	free case within the preview of one ICM
94)	mykóza+houba	free case within the preview of one ICM
95)	vesmír+raketa	free case within the preview of one ICM
96)	zima+sněženka	free case within the preview of one ICM

97)	radost+štěstí	free case within the preview of one ICM
98)	smrt+hřbitov	free case within the preview of one ICM
99)	radost+jaro	free case within the preview of one ICM
100)	obdělávat+vůz	free case within the preview of one ICM
101)	led+zima	free case within the preview of one ICM
102)	závěs+látka	free case within the preview of one ICM
103)	závěs+okno	free case within the preview of one ICM
104)	zvěř+roh	free case within the preview of one ICM
105)	hrouda+kámen	free case within the preview of one ICM
106)	uniforma+policista	free case within the preview of one ICM
107)	opice+banán	free case within the preview of one ICM
108)	oblek+podnikatel	free case within the preview of one ICM
109)	pizza+hospoda	free case within the preview of one ICM
110)	les+ježek	free case within the preview of one ICM
111)	lávka+řeka	free case within the preview of one ICM
112)	jezero+lochneska	free case within the preview of one ICM
113)	bezdomovec+žebrák	free case within the preview of one ICM
114)	jeskyně+krápník	free case within the preview of one ICM
115)	nemocnice+doktor	free case within the preview of one ICM
116)	sklo+zrcadlo	free case within the preview of one ICM
117)	oblek+košile	free case within the preview of one ICM
118)	škola+učitel	free case within the preview of one ICM
119)	škola+kniha	free case within the preview of one ICM
120)	pianista+klavír	free case within the preview of one ICM
121)	jeskyně+zima	free case within the preview of one ICM
122)	člověk+panák	free case within the preview of one ICM
123)	Hirošima+Asie	free case within the preview of one ICM
124)	Čapek+robot	free case within the preview of one ICM
125)	western+kaktus	free case within the preview of one ICM
126)	jaro+vzduch	free case within the preview of one ICM
127)	jaro+klíč	free case within the preview of one ICM
128)	western+hudba	free case within the preview of one ICM
129)	dovolená+jaro	free case within the preview of one ICM

130)	tělo+zombie	free case within the preview of one ICM
131)	manéž+umělec	free case within the preview of one ICM
132)	pianista+ruka	free case within the preview of one ICM
133)	mykóza+noha	free case within the preview of one ICM
134)	jídlo+trouba	free case within the preview of one ICM
135)	oběšenec+provaz	free case within the preview of one ICM
136)	jídlo+hrnec	free case within the preview of one ICM
137)	pizza+trouba	free case within the preview of one ICM
138)	opice+štika	co-hyponymy
139)	krysa+myš	co-hyponymy
140)	krysa+netopýr	co-hyponymy
141)	auto+koloběžka	co-hyponymy
142)	auto+raketa	co-hyponymy
143)	Poirot+Francie	free case within the preview of two ICMs
144)	Hirošima+popel	free case within the preview of two ICMs
145)	Sparrow+kino	free case within the preview of two ICMs
146)	Sněhurka+kouzlo	free case within the preview of two ICMs
147)	jaro+třešeň	free case within the preview of two ICMs
148)	zima+los	free case within the preview of two ICMs
149)	doprava+nádraží	free case within the preview of two ICMs
150)	smrt+kyvadlo	free case within the preview of two ICMs
151)	doba+kyvadlo	free case within the preview of two ICMs
152)	western+vesnice	free case within the preview of two ICMs
153)	nemocnice+srdce	free case within the preview of two ICMs
154)	nemocnice+ucho	free case within the preview of two ICMs
155)	stránka+tužka	free case within the preview of two ICMs
156)	stránka+knihovna	free case within the preview of two ICMs
157)	jeptiška+televize	free case within the preview of two ICMs
158)	prso+savec	free case within the preview of two ICMs
159)	oběšenec+panák	free case within the preview of two ICMs
160)	zeleň+džungle	free case within the preview of two ICMs
161)	jeptiška+tučňák	free case within the preview of two ICMs
162)	chlapák+obr	free case within the preview of two ICMs

163)	zvěř+slon	free case within the preview of two ICMs
164)	cizinec+ninja	free case within the preview of two ICMs
165)	les+dřevo	free case within the preview of two ICMs
166)	lávka+kmen	free case within the preview of two ICMs
167)	dovolená+velryba	free case within the preview of two ICMs
168)	štěstí+zrcadlo	free case within the preview of two ICMs
169)	válka+Anglie	free case within the preview of two ICMs
170)	Aljaška+Yetti	free case within the preview of two ICMs
171)	Aljaška+ostrov	free case within the preview of two ICMs
172)	doprava+raketa	free case within the preview of two ICMs
173)	doba+prach	free case within the preview of two ICMs
174)	dovolená+láska	free case within the preview of two ICMs
175)	tělo+panák	free case within the preview of two ICMs
176)	manéž+prach	free case within the preview of two ICMs
177)	jezero+parník	free case within the preview of two ICMs
178)	chata+léto	free case within the preview of two ICMs
179)	chata+láska	free case within the preview of two ICMs
180)	chata+kytara	free case within the preview of two ICMs
181)	háček+štika	free case within the preview of two ICMs
182)	chlapák+řidič	free case within the preview of two ICMs
183)	pianista+knír	free case within the preview of two ICMs
184)	Aljaška+sekera	free case within the preview of two ICMs
185)	Hirošima+údolí	free case within the preview of two ICMs
186)	Čapek+Venuše	free case within the preview of two ICMs
187)	jeskyně+duch	free case within the preview of two ICMs
188)	člověk+programátor	free case within the preview of two ICMs
189)	vydání+počítač	free case within the preview of two ICMs
190)	maso+hospoda	free case within the preview of two ICMs
191)	štěstí+hvězda	free case within the preview of two ICMs
192)	válka+louka	free case within the preview of two ICMs
193)	doprava+šipka	free case within the preview of two ICMs
194)	doba+vesmír	free case within the preview of two ICMs
195)	dovolená+kytara	free case within the preview of two ICMs

196)	háček+řeka	free case within the preview of two ICMs
197)	chlapák+nepřítel	free case within the preview of two ICMs
198)	špinavý+pračka	overlap between syntagma and semantic relation
199)	špinavý+obr	overlap between syntagma and semantic relation
200)	polární+zima	overlap between syntagma and semantic relation
201)	polární+tučňák	overlap between syntagma and semantic relation
202)	špinavý+umělec	overlap between syntagma and semantic relation