SVEUČILIŠTE U ZAGREBU

FILOZOFSKI FAKULTET

ODSJEK ZA ANGLISTIKU

Primarna metafora VRIJEME JE KRETANJE u engleskom i hrvatskom jeziku: psiholingvističko istraživanje

Sonja Matić

Diplomski rad

Mentor: dr. sc. Mateusz-Milan Stanojević, doc.

Komentor: dr. sc. Mirjana Tonković, doc.

Zagreb, 2016

UNIVERSITY OF ZAGREB

FACULTY OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF ENGLISH

The primary metaphor TIME IS MOTION in English and Croatian: a psycholinguistic study

Sonja Matić

Diploma thesis

Advisor: dr. sc. Mateusz-Milan Stanojević, doc.

Co-advisor: dr. sc. Mirjana Tonković, doc.

Zagreb, 2016

Povjerenstvo: Committee in charge:

dr. sc. Višnja Josipović Smojver, red. prof.   Full Professor Višnja Josipović Smojver

dr. sc. Mateusz-Milan Stanojević, doc.   Assistant Professor Mateusz-Milan Stanojević

dr. sc. Mirjana Tonković, doc.   Assistant Professor Mirjana Tonković

Summary

In this paper, we will be focusing on conceptual metaphors and their role in our everyday life. Conceptual metaphors describe abstract concepts using a more familiar, concrete concept, such as using the concept of a journey to describe the abstract concept of love or a love relationship as in "*Our relationship has hit a dead-end street*". The aim of this paper is to see whether the conceptual metaphor TIME IS MOTION works as a metaphor in Croatian. We conducted two experiments on the students of Faculty of Humanities and Social Sciences. In both experiments, the participants were each given one version of the same story (the first one contained state verbs and the second one verbs of motion) and they had to answer how long did the conversation from the story last. We assumed that the conversation in the first story would be 'shorter' and the one in the second would be 'longer', because our initial hypothesis was that more time equals more motion. However, the results were obtained through t-test which showed that there is not a statistically significant difference in the mean test scores of the two sample groups. Furthermore, the participants attributed more time to the conversation from the first story which did not correlate with our hypothesis. The results actually pointed out to the phenomena of *protracted duration* and *temporal compression*. This would suggest that our conception of time is closely linked to the amount of information our brain has to process at a given time. Another important point is the use of verbs, which were both bounded and unbounded in both versions of the story.

Key words: *conceptual metaphor, time is motion, cognitive linguistics*

Contents

1. Introduction

When conversing, writing, or even singing, people interpret one thing in relation to another and that is why metaphors construct our day to day situations. Whether that is at work, at school, at home or in the street in random situations in which we find ourselves on a daily basis. They construct the liveliest part of our everyday language. So if we use them every day more than three or four times, how come we are not aware of them? Lakoff and Johnson argue that our conceptual system is "largely metaphorical, which means that the way we think, what we experience, and what we do every day is a matter of metaphor" (Lakoff and Johnson 1980, 3).

Let us have a look at a metaphorical expression

(1) We are *coming up on* Christmas.

Example such as (1) is considered metaphorical because we are using spatial reference to talk about time. In this example, we, the subject, move through time towards the object of the sentence. What happens in (1) is that we use our understanding of the domain of space, which we understand directly, to talk about time, which we understand metaphorically.

If our conceptual system is really metaphorical as seen from (1), then it should not only be seen in how we use language, but also from psycholinguistic evidence. In other words, if we really understand time only through space and motion, then our understanding of motion should have a direct influence on how we understand time. This is precisely what is tested for English in a work by Gentner, Imai and Boroditsky (2002). The aim of this paper is to see to what extent this is also true for Croatian. More specifically, we have conducted an experiment to test whether more motion in a story will mean that people will judge that a greater length of time has passed. If this proves to be correct, it would imply that the participants will attribute longer duration to the story in which we used verbs of motion, rather than the story in which state verbs were primarily used.

For the purpose of this thesis, we cooperated with the Institute of Croatian Language and Linguistics on the project of Croatian Metaphor Repository. They work closely with the International Computer Science Institute in Berkeley, California, which is compiling all the metaphors from several languages that would then be systematically analyzed in a computational way. Their idea is to design a program which would automatically identify a metaphor, and

would link it directly to, according to the meaning of the metaphor, its underlying conceptual metaphor. Their project, MetaNet: A Multilingual Metaphor Repository, is a metaphor database which contains all the metaphors known to man from four different languages: American English, Mexican Spanish, Iranian Persian and Russian spoken in Russia. Our Croatian equivalent is a project that aims to create a metaphorical language database, the Croatian Metaphor Repository, and incorporate a theoretical research of conceptual metaphor, as well as metonymy, image schemas and frames in the Croatian language; psychological experiments to explain the nature of the links between concept meaning and perception which are manifested in primary metaphors. The database will be available online and the metaphors will be divided by type, level and family (Croatian Metaphor Repository).

This paper is organized as follows. Section 2 provides an overview of conceptual metaphor and psycholinguistic research into it. Section 3 provides our research along with the aim, hypothesis, methods, explanation of the procedure used in groups, a prior research, t-test used to analyze the results and the results. This is followed by a discussion and conclusion.

2. Metaphor

Metaphors are a figure of speech used in order to express one thing in terms of another. In the traditional approach, metaphors were claimed to be used only in literature, while metaphors that were used in everyday speech were seen as dead metaphors (Žic Fuchs 1991, 27).

Traditional semantics sees metaphors as a condensed comparison between two things (Žic Fuchs 1991, 28). The two terms introduced were tenor and vehicle (Stanojević 2013, 41). Tenor is the element in the structure of metaphor that is being compared to something. Vehicle is the element in the structure of metaphor to which tenor is compared. The relationship between the two is seen as a similarity of senses, which can be objective ("*The crest of the mountain.*"), emotive ("*Bitter disappointment.*") and anthropomorphic ("*The hands of a clock.*").

In the cognitive linguistic approach, metaphors have a much more important place in our everyday speech. They are no longer seen as dead, but instead are thought to represent the liveliest part of the language, although we do not necessarily realize that we are using a metaphor.

Although Lakoff and Johnson say that metaphors are "a device of the poetic imagination and the rhetorical flourish", they also recognized them as much more. They say that they are not just "a matter of words" (Lakof and Johnson 1980, 3), because they are embodied in our cognitive structure, and we are not aware that we are using a metaphor when we describe, for example, how we feel about someone or how we grasp the concept of money, how we get around in the world, how we communicate with others or how we perceive the world (Lakoff and Johnson 1980, 3). So a sentence such as:

(2) "My heart is on fire"

the metaphor behind this sentence is LOVE IS FIRE. Similarly in:

(3) "Is that worth your time?"

the metaphor behind it is TIME IS MONEY.

In conceptual metaphors, we compare two domains and by comparing them we look for connections between the domains (Stanojević 2013, 54). These connections are called *mappings*. The basis of conceptual metaphors is to explain a lesser-known target domain through a better-known source domain. We can see this in the example LOVE IS A JOURNEY in which we have used a better-known domain (journey) to explain a lesser-known or abstract domain (love or relationship). In examples (2) and (3), we used our knowledge of *fire* and *money* to explain the domains of *love* and *time*. It is important to stress that the target domain is the one we know more about and we use it to explain or describe a characteristic of the source domain (Stanojević 2013, 54). Also, the two domains need to be distinct for there to be a conceptual metaphor, both target and source domain has to be a part of our experience we perceive as different. We can see that both concepts in examples (2) and (3) come from two separate domains and we have acquired some kind of knowledge about each of them that we now map onto the other domain, thus creating new correlations between the source domain and target domain. Conceptual metaphors are represented in the written form as TARGET DOMAIN IS SOURCE DOMAIN.

In conceptual metaphor, we use the knowledge of one domain, such as *fire* or *money* in (2) and (3), which is called the SOURCE domain to describe a domain that we do not know as much about or do not understand directly, such as *love* and *time* in (2) and (3). The latter domain

is called the TARGET domain. So, basic conceptual metaphors elicit a relationship between the source domain and the target domain or, more specifically, Lakoff and Johnson say that conceptual metaphors are "mappings across conceptual domains that structure our reasoning, our experience, and our everyday life" (Lakoff and Johnson 1999, 47). They are the most general representations of a metaphor. Some examples of conceptual metaphors include LOVE IS WAR, LOVE IS MAGIC, LOVE IS A JOURNEY, TIME IS MONEY, PEOPLE ARE PLANTS, LIFE IS A ROAD, HAPPY IS UP, GOOD IS UP, MORE IS UP, TIME IS MOTION, etc. However, in this paper, we will focus on the conceptual metaphor TIME IS MOTION around which we based both of our experiments (see section 2.2.1.).

There are also several categories of metaphors which, according to Lakoff and Johnson, tend to overlap. These are: *structural metaphors* where one concept is metaphorically structured in terms of another (e.g. ARGUMENT IS WAR, TIME IS A RESOURCE, LOVE IS WAR); *orientational metaphors* which organize a whole system of concepts with respect to one another (ex. MORE IS UP, HAPPY IS UP, SAD IS DOWN, etc.); and *ontological metaphors* in which something concrete is projected onto something abstract (e.g. INFLATION IS AN ENTITY, Life *has cheated* me., Cancer finally *caught up with* him.) (Lakoff and Johnson 1980, 14-15).

2.1. Basic characteristics of conceptual metaphors

There are several basic characteristics of conceptual metaphors. They are unidirectional, they have a specific relation with culture and conventionality, and are based on primary metaphors. Let's look at each one of these in turn.

2.1.1. Unidirectionality

One interesting characteristic of conceptual metaphors is their unidirectionality. This means that we always look at conceptual metaphors as TARGET DOMAIN IS SOURCE DOMAIN and not the other way around. We judge and describe one concept in terms of the other, i.e. we use our knowledge of a concrete concept from the source domain to describe an abstract concept from the target domain. The reverse would be improbable – describing a concrete concept of, for example, money or fire in terms of an abstract concept of, for example, time or love.

2.1.2. Culture and conventionality

The majority of conceptual metaphors used in everyday language are conventional and motivated by our experience. We use the expressions we are closely connected to and know a lot

about, such as the parts of our body, the environment, animals and plants that are familiar to us, etc. These conventional metaphors make the foundation of the cognitive linguistic approach (Stanojević 2013, 93). Because they are conventional, we do not consider them as metaphors in our daily interactions, but we can see their metaphorical meaning when it is specifically pointed out because there is a clear connection to the literal meaning of the metaphor. However, conventionality may be different in different culture since every domain is necessarily embedded in the culture of the language. If we take a look at the expression *to turn a blind eye* in English and its equivalent *zažmiriti na jedno oko* in Croatian, we get two variations of the metaphor KNOWING IS SEEING and both of them refer to the action of evading to realize or see what is negative, but they are expressed in slightly different ways because of the variations in two cultures (Stanojević 2013, 100-101). The two expressions differ in the way they describe the consequence. Another interesting example is the way different cultures 'see' the passage of time. If we take a look at the difference between the English concept of time and how it is presented on the time line and the Chinese concept of time, we can see that the English 'see' time as moving horizontally as the events and objects move back and forth on the time-line, whereas the Chinese see time as moving up and down, i.e. vertically on the time-line.

2.1.3. The importance of primary metaphor

We will now briefly reflect on the theory of primary metaphor, elaborated by Lakoff and Johnson in their book Philosophy in The Flesh, which consists of four parts (Lakoff and Johnson 1999, 46-47).

- The first part, Johnson's theory of conflation, states that during the period of conflation, people make connections between the two domains and that this happens automatically, without us knowing. We do not make the distinction between the associations until a later stage when we are able to separate different domains. Nevertheless, cross-domain associations persist and these represent the mappings of conceptual metaphor.
- The second part, Grady's theory of primary metaphor, talks about the complexity of metaphors. All complex metaphors consist of smaller metaphorical parts called primary metaphors. Grady compares it to chemistry and talks about molecules which are made of atoms. He argues that every primary metaphor "has a minimal structure

and arises naturally, automatically, and unconsciously through everyday experience by means of conflation".

- The third part, Narayanan's neural theory of metaphor, says that primary metaphors have established neural connections during the stage of conflation and that these connections are the reason why we can associate source and target domains.

- The fourth part, Fauconnier and Turner's theory of conceptual blending, argues that different domains can be co-activated which could lead to the formation of connections across domains, which would then lead to new inferences. This kind of "conceptual blending" could be conventional or original.

This integrated theory of primary metaphors indicates that people acquire a large system of metaphors automatically through everyday situations and that we are not even aware of it.

Lakoff and Johnson said that conceptual metaphors are "mappings across conceptual domains that structure our reasoning, our experience and our everyday language" (Lakoff and Johnson 1999, 47). This would mean that metaphors are innate and that we are unaware of their use and their role in our everyday life. Since we have acquired a large number of primary metaphors as small children, we are not aware of what is happening; that we make unlikely connections between two domains that would not make much sense if we stopped and thought about it. If we take "Our relationship had hit a dead-end street." as an example, proposed by Lakoff and Johnson (Lakoff and Johnson 1999, 65-66), the questions that could be posed would be: What does it mean *to hit a dead-end street*? How can a relationship, something that is abstract in our minds, hit a street? This is when generalization comes into place and we try and simplify the metaphor to LOVE IS JOURNEY, because *relationship* would represent the love that this couple has for each other, and the part *hit a dead-end street* would stand for some kind of a journey since we are talking about a street or a road where the journey takes place.

Primary metaphors represent part of our cognitive unconscious and we acquire them automatically and unconsciously through everyday life. They are a matter of "immediate conceptual mapping via neural connections" (Lakoff and Johnson 1999, 57) learned by coactivation. They represent the mapping of concepts from a *source domain* to a *target domain*, allowing us to think abstractly, and they come about through experiences that are in some kind of correlation. The two domains become more and more generalized, more different, and we begin

to think of them metaphorically (Stanojević 2013, 89). A well-known example is the correlation between *height* and *quantity* where, if we pour water into a glass, the more water we pour in, the higher the level of the water will be. There are hundreds of primary metaphors, and we will name several of them along with one or two examples, listed by Lakoff and Johnson (Lakoff and Johnson 1999, 50-54).

<div align="center">

AFFECTION IS WARMTH

They greeted me *warmly*.

IMPORTANT IS BIG

Tomorrow is a *big* day.

DIFFICULTIES ARE BURDENS

She's *weighted down* by her responsibilities.

CATEGORIES ARE CONTAINERS

Are tomatoes *in* the fruit or vegetable category?

STATES ARE LOCATIONS

</div>

I'm *close to* being *in* a depression and the next thing that goes wrong will *send me over the edge*.

These are all primary metaphors; however, there are certain linguistic expressions of metaphors that are idioms. For example, the metaphor LOVE IS A JOURNEY includes idioms *spinning one's wheels, off the track, on the rocks* and so on. Lakoff and Johnson explain that their meaning is "motivated by the metaphorical mapping and certain conventional images" (Lakoff and Johnson 1999, 68). They explain the meaning behind the *spinning one's wheels* idiom which is associated with our knowledge of this mental image. We know that the word *wheels* refers to the wheels of a car which are spinning, but the car in this instance is not moving, it is stuck. People in the car are not happy with this situation and they want the car to be moving so that they can continue their voyage. When we map this knowledge onto our metaphor LOVE IS A JOURNEY we get a love relationship which is stuck. The lovers want their relationship to

keep moving, but they cannot do anything about it, and they feel frustrated. This would be the meaning behind the idiom spinning one's wheels. Lakoff and Johnson call these idioms "metaphorical idioms" and they come with a "conventional mental image and knowledge about that image" (Lakoff and Johnson 1999, 68). Metaphorical idioms are very important since they show us that there are conventional images shared by many speakers of a language, that words can designate portions of conventional mental images, that cultural knowledge plays a significant role in conveying conventional images and our knowledge of those images, that the meaning of individual words may not be the same as the meaning of the expression as a whole.

The question that arises is *why do we need metaphors at all? Can't we communicate without them*? The answer is *yes, we can*, but our communication would then be reduced to the most basic, minimal structure. We would only be able to talk about literal concepts and ideas and not about abstract thought. We use metaphors in everyday language because they give us "subjective experience with rich inferential structure, imagery, and qualitative 'feel'" (Lakoff and Johnson 1999, 59).

2.2. Time metaphors

Primary metaphors constitute our cognitive unconscious and that we acquire them automatically and unconsciously, and when the experiences are universal, the primary metaphors are universally acquired. We have also given several examples of primary metaphors and explained the meaning behind one of them, or more accurately, the meaning behind one metaphorical idiom. The conceptual metaphor we are analyzing in this paper is TIME IS MOTION, as in "Time *flies*". However, we will not be concentrating on different expressions in which this metaphor is represented, but rather we will focus on the way we perceive this conceptual metaphor in our mind. In other words, we will conduct an experiment to see whether people see time as motion and how time is conceptualized through motion.

Before 'digging into' TIME IS MOTION, we have to address the relationship between time and space domains. People often talk about time in terms of space because the domain of space is three-dimensional, more easily perceptible, richer in meaning, more elaborated and more familiar. On the other hand, time is regarded as a one-dimensional, directional entity. As Lakoff and Johnson propose, our conceptual system is structured around a small set of experiential concepts which emerge directly from our experience. These fundamental concepts are used to

describe all the other abstract concepts which do not emerge directly from our physical experience. This means that the task of a metaphor is to provide relational structure to an abstract domain by importing it from a different and more concrete domain.

This is why we will turn to Boroditsky's (1999) paper on understanding time through spatial metaphors. In her paper, she conducted three experiments that focused on the way we use space in terms of time and vice versa. The results show that "the domains of space and time share conceptual structure, spatial relational information is just as useful for thinking about time as temporal information, and with frequent use, mappings between space and time and time come to be stored in the domain of time so thinking about time does not necessarily require access to spatial schemas" (Boroditsky 1999, 1). She states that there are some elements of time that are apparent in our experience of the world, for example, we know that each moment in time happens only once, that everything must end, i.e. that it has a beginning and an end, that we can only be in one place at one time and that we can never go back in time (Boroditsky 1999, 3). But there are other aspects of time that are not observable, such as: does time move horizontally or vertically, forward or backward, up or down? In these instances we must rely on spatial metaphors which play a role in shaping our temporal domain. However, if a metaphorical mapping is frequently used between two domains, this mapping might eventually be stored in the target domain so that in the future we would not need to go through the same mapping, that mapping might then become conventionalized. Boroditsky concluded that time and space share some conceptual similarities beyond the similarities in language and that, even though we might use spatial metaphors to structure events in time, it is not necessary to do so. From three experiments she conducted we can see that abstract domains, such as time, are shaped by more concrete and experiential domains, such as space (Boroditsky 1999, 26).

2.2.1. TIME IS MOTION

Time and temporal concepts are most frequently associated and expressed through motion concepts. As Evans (2004) explains in his book, every time an object is moving, this motion then correlates with the passage of time, and the tight correlation between motion and time is what motivates our understanding of time in terms of motion (Evans 2004, 201). But, Evans wonders if "our experience of motion correlates with our experience of time", does it then necessarily

mean that time correlates with motion". We know that we experience time whether or not there is motion, if we are sitting on a chair, riding a bike or running. So why should we use motion to make sense of time and not experiences which correlate with temporal experience on a larger scale? Evans gives an example of breathing which is ongoing, regardless if we are standing still or moving, and suggests that this action of breathing should have a stronger claim as being more related to temporal experience than motion. He goes on to say that even though this might be true, we are, in most cases, unaware of the action of breathing because that action is not under our control, it is a reflex (Evans 2004, 202). The same could be said of the beating of the human heart. Evans also states that our survival depends on our ability to perceive motion and hide and protect ourselves from the imminent danger. However, even though motion is very prominent, some facts would suggest that it is almost as 'normal' as the process of breathing. Evans mentions a study on the psychology of vision in which the researchers found out that we are subjected to the visual flow of experience from birth and that this experience 'flows' past us even before we acquire the ability to move ourselves. With our eyes we see the world 'flowing past' us and this phenomenon would suggest, says Evans, that "motion is perceptually both ubiquitous and salient, and thus forms a tight and ubiquitous correlation with on-going temporal experience" (Evans 2004, 202).

We said in the previous chapter that complex metaphors are made of smaller primary metaphors or conceptual metaphors and that we acquire them just by living and breathing in this world, involuntarily and unknowingly. Both primary and complex metaphors make part of our unconscious mind and for the most part we have no control how we use them or are not even aware that we are using a metaphor. Lakoff and Johnson give us one of the definitions of primary metaphors. They say they are "cross-domain mappings, from a *source domain* to a *target domain*, preserving inference and sometimes preserving lexical representation" (Lakoff and Johnson 1999, 58). In our example, the source domain is *motion* and target domain is *time*, a concept we know little about and which we are trying to define.

When we talk about time, we are immediately and inadvertently comparing and measuring it by space, motion or a sequence of events. Time itself cannot be observed or measured but we can measure an event and compare it to another event, which can be longer or shorter. The basic

literal properties of the concept of time are also the consequences of properties of events, listed by Lakoff and Johnson in their book Philosophy In The Flesh:

- Time is directional and irreversible because events are directional and irreversible; events cannot "unhappen".
- Time is continuous because we experience events as continuous.
- Time is segmentable because periodic events have beginnings and ends.
- Time can be measured because iterations of events can be counted. (Philosophy In The Flesh 1999, 138)

This means that we always see time through events and we measure it by comparing and contrasting these events.

There are a number of metaphors we use to conceptualize time. Some of them are TIME IS MONEY, TIME IS RESOURCE, and TIME IS MOTION. We see that in defining time, we always use a domain, a source domain, to compare it and conceptualize time. And when we talk about time in terms of a metaphor in English, we are certainly talking about the Time Orientation metaphor (Lakoff and Johnson 1999, 140). They say it is the most basic metaphor for time in which there is an observer who is facing towards the future, with the past behind the observer. The schema for this metaphor is:

The Location of The Observer –> The Present

The Space In Front Of The Observer –> The Future

The Space Behind The Observer –> The Past

TIME IS MOTION is one of the primary metaphors used to understand the concept of time. When we talk about time and motion, we are talking about the Moving Time Metaphor in which we have an observer who is stationary and facing in a fixed direction, and a sequence of objects moving past the observer. These objects stand for times and the motion of the objects past the observer represents the passage of time. What Lakoff and Johnson are trying to explain by this schema is that his Moving Time mapping uses information in the spatial schema in order to give us an understanding of time as moving (Lakoff and Johnson 1999, 141-142).

Objects –> Times

The Motion Of Objects Past The Observer –> The "Passage" Of Time

And when we combine it with the Time Orientation metaphor, we conclude that if there is only one observer, there is only one present; the objects move in the same direction, meaning that times move in the same direction; moving objects face in the direction of motion, which means that times face in their direction of motion. This is how the information from the spatial schema helps us conceptualize our understanding of time as moving. Some linguistic examples of the Moving Time metaphor include: The time will *come* when there are no more typewriters. The time for action *has arrived*. Time is *flying by*. The summer just *zoomed by*.

So we see that in this metaphor, present is always at the same location as the observer, with the space in front of the observer being the future, and the observer is facing it, while the space behind the observer is the past and the observer is with his back to it. The observer's location is the reference point here and it is determining our choice of words referring to the future or the past.

Another metaphor related to time and motion is the Moving Observer metaphor. In this metaphor, the observer is moving, rather than being at a fixed position and the locations in the observer's path is a time. Here, the observer's location is present and it changes with the observer, its previous location now becoming the past.

Locations On Observer's Path Of Motion –> Times

The Motion Of The Observer –> The "Passage" Of Time

The Distance Moved By The Observer –> The Amount Of Time "Passed"

Still in this metaphor, the future is ahead of the observer and the past is behind the observer. Here, we are measuring the length of the observer's path which can be long or short, hence the linguistic expressions we might run into and listed by Lakoff and Johnson (Lakoff and Johnson 1999, 146): There's going to be trouble *down the road*. We're *getting close to* Christmas. We *passed* the deadline. We're *halfway through* September.

Although Evans admits that time constitutes a phenomenologically real experience, he argues that our own experience of time cannot be the same as objectively real entity that exists in the world (Evans 2004, 8). He argues that time is an abstract concept in our minds and that it can be perceived only through comparison of different events or duration which is closely related to our concept of time. Evans presents Ornstein's experiment in which the latter saw that the participants may experience shorter tasks as being 'longer' if those included more complex tasks (Evans 2004, 17-19). He also found out that the sense of 'complexity' differs from one individual to another. This thesis will be important to us when we discuss the results obtained from our research. Based on his findings, Ornstein saw that there exists a certain correlation between task complexity and experience of duration which might have something to do with the amount of storage space in memory required for a particular stimulus array, but we will talk more about it a little later.

Evans discusses in his book whether the metaphors Moving Time or Moving Ego, that are related to our primary metaphor TIME IS MOTION, constitute instances of compound metaphor rather than primary metaphor. He says that primary metaphors relate to distinct concepts and not to a set of mappings related to two entire domains. Three problems arise when claiming that Moving Time and Moving Ego mappings are primary metaphors: a) the problem of unelaborated time, b) the problem of cultural concepts, and c) the problem of complex concepts (Evans 2004, 62). Instead of these three problems, he states the following (Evans 2004, 76-77):

> […]while metaphor theorists have assumed that what is literal and inherent about time relates to an awareness of change, a broad range of evidence suggests that the subjective experience of time may in fact ultimately relate to our experience of duration. The second problem relates to the temporal concepts employed in the linguistic examples used to support the primary metaphor position. The lexical concepts invoked appear to be cultural constructs, rather than deriving from universal experiences. The third problem is that of complex concepts. The difficulty for CMT here is that it is not at all clear that the linguistic examples employed do relate to a relatively simple phenomenological experience of time.

Evans discusses several senses involved with the concept of *time*, such as Duration Sense, Matrix Sense, Moment Sense and Event Sense. In this paper, we will concentrate on Duration Sense

connected to *time*. Evans says that *time* in its Duration Sense "prompts for a lexical concept which constitutes an interval bounded by two 'boundary' events, i.e. the beginning and ending between two boundary events" (Evans 2004, 108). This means that *time* is regarded as succession of events, each of them having a beginning and an end, termed *onset* and *offset* respectively, and duration is regarded as an interval which extends between two boundary events, so an interval of duration, like time, results from succession. We see that events are successive (otherwise we would not experience duration) and they can be related in an almost infinite way and variety. We can thus see human lifespan as an event which has a beginning or onset, birth, and an end or offset, death. Similarly we could divide other intervals, such as beginning and finishing kindergarten, primary school, secondary school, college, starting a career and retirement. We could even break these into smaller intervals, such as the beginning and end of the day, onset and offset of an hour in a day or any other interval which represents events that are related at varying degrees of specificity (Evans 2004, 108-109).

2.3. Active and stative verbs and the TIME IS MOTION metaphor

When we use language, one of the crucial ways in which time is visible grammatically is through the use of verbs in various tenses. As opposed to verbs, nouns do not change through time. Cognitive linguistics sees this as a fundamental difference in human mind regarding the formation of conceptual structures, that of the dichotomy of *thing* and *relation* (Tabakowska 2005, 20). These two terms are diagonal in their meaning and can be interpreted by three basic semantic opposites: between space and time, between dynamic and static state, and between autonomy and conceptual dependency (Tabakowska 2005, 21). A *thing* is realized as something that takes up a certain area in space, it has the ability to retain its state and whose existence at a certain place and time does not depend on the relationship to other things. Unlike things, relations tend to take place in time, they are dynamic in character, they result in changing the state of the object which means that in order to have relations, first there have to be objects between which relations can take place. The most common relations are physical processes whose base is that of motion or movement (Tabakowska 2005, 21-22).

However, under movement one might consider a change in configuration of abstract objects that enter into some kind of relations with each other in mental space. According to this, relations are not just processes expressed in language through verbs that define actions *determined using*

19

senses, such as *to run* or *to read*, but also processes that are defined by verbs that specify *physical and spiritual actions*, such as *to conclude* or *to consider*. Another important characteristic that needs to be represented is that of *bounding* (Tabakowska 2005, 53). An object might be bounded due to its nature, but also by the mind that is creating a conceptualization.

Here, we will concentrate on verbs and their bounding because, in order to operationalize the distinction in the TIME IS MOTION metaphor, we needed to use verbs which denoted state and those which denoted action to make a distinction between the two stories used in our research. Tabakowska says that verbs and nouns are very alike in one important aspect – the opposition between countability and uncountability vs. transitivity and intransitivity (Tabakowska 2005, 56). She also says that verbs express relations and that the most typical verbs express processes, i.e. the change of state that occurs in a given time. These processes, according to Tabakowska, consist of phases and each phase differs from the other because all these processes have their beginning, middle and end. The difference between perfective and imperfective verbs is that perfective verbs are seen as complete and bounded in time. When we look at them, we can clearly see their beginning, middle and end.

The closest to the concept of an uncountable noun is the nonfinite verb *to believe*. We see the state as a string of similar configurations, so we can say that all the stages of the verb *to believe* are alike and a relation we are describing with this verb can be attributed greater or smaller elasticity in time without any qualitative change. In this sense, the verb *to believe* is a homogeneous entity symbolized by a straight line. That is the case of the Croatian verbs *sjediti*, *ležati*, *hodati, pričati, osjećati, razmišljati* used in the story. However, we can impose external bounding by adding adverbials that would introduce the element of repetition in these verbs and then defining or bounding one part of it (Tabakowska 2005, 57-59).

In order to use verbs specifically related to a lack of motion, the following verbs were used in the first story: *sjediti, nagnuti se, prebaciti (nogu preko noge), leći, uzeti, spustiti, promijeniti (pozu), ostati, izgledati, odlijepiti, čekati* and *osjećati (klupu)*.

As opposed to that, in the second story we used verbs such as: *šetati, hodati, ubrzati (korak), zaobići, koračati, potrčati, gurnuti, reći, skidati (jaknu), prošetati (pogledom), čekati* and *osjećati (strujanje zraka)*.

In both groups, we can find those verbs that are homogeneous in their meaning and those that are heterogeneous. Therefore, the conclusion would be that the use of different verbs was not the key factor the participants used in order to determine the length of the conversation in our stories.

3. Research

Through the metaphor TIME IS MOTION, we experience the passage of time as we move or observe motion. Our goal was to check whether this metaphor has cognitive reality, i.e. whether the participants will "feel" as though more time has passed if they are observing motion or if they are primarily being still. In order to do that we conducted an experiment where participants were given two versions of a story, which differed in the type of verbs that it contained – one story had verbs that were dynamic, i.e. motion related, and the other with verbs that referred to static activities. Thus, we are conceptualizing the "passage" of time in terms of relative motion between the observer and times conceptualized in terms of space. In other words, the observer from our first story is stationary while time passes by him, and in the other time is characterized by the points in the landscape the observer moves over.

In order to do that we constructed a story which differed only in the types of verbs used in it. The verbs presented in the previous section were used in it, also see Appendix 1.

3.1. Aim

The aim of this study is to study the TIME IS MOTION metaphor and its relation to our experience of time as we move or observe motion. More specifically, we wish to see whether participants in the experiment will report that more time has passed if they observe motion, as opposed to the situation where they are observing a situation which has no movement.

3.2. Hypothesis

We assumed that participants will say that more time has passed in the condition that they are exposed to more dynamic activities (i.e. motion) then when they are exposed to more static activities (i.e. being still).

3.3. Methods

3.3.1. Participants

The research was conducted on two different groups of students at the Faculty of Humanities and Social Sciences and at different times during the academic year. The first group of students included one hundred undergraduate students of English language and literature and the students of French language and literature (Group 1). The second group included 72 students of Psychology (Group 2). The students participated in the research for no credit.

3.3.2. Apparatus and materials

Our research consisted of two stories which differed only in the verbs that were used to tell the story. In the first one, we used state verbs, and in the second story, active verbs were used. All the other elements of the story remained the same, with maybe slight differences to adjust the sentences to different verbs. The stories were distributed evenly in order to have the same number of participants reading both stories. The two versions of the story are available in Appendix 1.

A different set of questions was used with Groups 1 and 2. They are provided in Appendix 2.

The study was conducted at the Faculty of Humanities and Social Sciences. The first group of participants consisted of students of English language and literature and students of French language and literature. The two groups of students were given a questionnaire during one of their classes and were asked to answer using a pen or a pencil. The experiment for group 1 took place in June 2015 and the participants were not given a time limit, but everybody finished approximately 15 minutes into the experiment.

The second group of participants consisted of students of Psychology which answered the questionnaire all at once during one of their classes. They were told that the research was being conducted by the colleagues from the English department and asked to answer the questions using a pen or a pencil. No time limit was provided, but everybody finished approximately 20 minutes into the experiment which took place in March 2016.

3.3.3. Procedure

3.3.3.1.   *Prior research*

In order to help in constructing the stories used in the experiment, we conducted a brief experiment on my family and friends (six of them in total), to see what they would think of the story we invented and if the questions are clear enough. The downside of the experiment was that it involved the people who know me and who knew the topic of my master's thesis so they knew our goal. The upside to this was that they did their best to answer our questions as best as they could, because they wanted to help me in writing my paper.

The participants in the prior research were told before reading the story that the goal of this study was to see if the story at hand was fit to be in a handbook for learning Croatian as a second language. They were given enough time and a possibility to go back to the story after reading the questions. Some of them tried to ask additional questions about the project or the answers we were expecting, but those were not answered until they had finished.

Three participants read each story, but they were not told the stories differ in any way until they had already finished answering the questions. Their answers to our question (*If the conversation started at noon, when exactly did it end?*) varied from "15 minutes" to "three hours". They found the questions and the experiment setup meaningful, so the stories remained unchanged for the main experiment.

3.3.3.2. Procedure for Group 1

In this experiment, the students were given a short story in Croatian and a set of seven questions related to the story (see Appendix 2 for the questions used with Group 1). However, they did not know that there were two versions of the same story. The first version contained state verbs, while the second version contained active verbs. All the questions were the same and the two versions of the story were distributed evenly.

They were told the research was for a graduation thesis and that we were testing if the story was suited to be in a student's book for learning Croatian as a foreign language. They were not given a time limit, or a restriction not to go back to the story, which a lot of them did looking in the story for a specific answer to our question.

3.3.3.3. Procedure for Group 2

After the study with Group 1, and after verifying all the answers, we noticed that our target question was not specific enough. We decided to rephrase the question and test another group of students. The rephrased questions used with Group 2 are available in Appendix 2. This time, our target question instructed them to give the exact estimate in minutes how long was, according to them, the telephone conversation while the stories remained the same as in the previous research. The participants were told that the research was conducted by their colleagues from the English department. They were also told that they have been given slightly different stories but that the questions were the same.

3.4. Results

3.4.1. Statistical test used

The analysis was conducted using the student's t-test, a statistical method used to see if two sets of data differ significantly. Martyn Shuttleworth explains that this method "assumes that the results follow the normal distribution if the null hypothesis is true" (Student's T-test). The null hypothesis of our research would then stipulate that there is no significant difference between the means of the two data sets in either group of students (two tests were conducted).

T-test is a statistical method used to compare our sample populations and determine if there is a significant difference between their means. The result of the t-test is a 't' value which is then used to determine p-value. P-value is the probability that 't' falls into a certain range, i.e. it determines if the difference between the means in the sample populations is significant. If $p \leq 0,05$, there is a significant difference between the means of our sample population and we would reject our null hypothesis. If $p > 0,05$, there is no significant difference between the means of our sample populations and we would not reject our null hypothesis.

The hypothesis at the beginning of our research was that people see time as motion, i.e. if people are active, they will perceive that more time had passed. Our null hypothesis was that there is no significant difference between time and motion, i.e. people are not likely to see the time passing quickly if they are moving as opposed to being static.

3.4.2. Results for Group 1

The first research was conducted on one hundred participants, students of English language and literature and French language and literature, but only 82 answers were taken into account

when analyzing the answers. The others were excluded from the research because they gave inconclusive answers, i.e. we could not assign a specific time frame to their response and therefore could not be taken into account; or they did not answer our question.

Those who answered "a few minutes" were assumed they meant by that "three minutes" and that time frame was assigned to all who gave "a few minutes" as their answer. The results showed that there is not a statistically significant difference in the mean test scores of the two sample groups, t=0,19; df=80; p>0,05, which means that our hypothesis was not confirmed. The results show that the participants did see the time passing quickly in the second story in which the boy was moving.

Note that because of the type of question we asked in Group 1, there were 18 participants that had to be excluded from the research because they gave answers such as: "It isn't mentioned", "I don't know", "It isn't specifically expressed in the story", etc. This is why the experiment was conducted a second time with a second group of participants.

3.4.3. Results for Group 2

The second research was conducted on 72 students of Psychology, but one student was excluded from the study because this person did not answer our question. Our assumption this time was that the students of Psychology would give more accurate answers, which they did. All the others gave a numerical estimate of the time frame of the conversation. However, the results again showed that there is not a statistically significant difference in the mean test scores of the two sample groups, t=0,48; df=69; p>0,05. The results once again did not confirm our initial hypothesis.

4. Discussion

The research conducted did not support our hypothesis. In the first experiment (Group 1), the students (N=82) estimated that the conversation in the story in which state verbs and adverbials were used took longer than the one in which active verbs were used. Their estimate is that it took 24.1 minutes for the first conversation and 23.2 minutes for the conversation to finish in the second story. In addition, the results are opposite to what we would expect; they suggest that the conversation in the story with the state verbs took longer than the one in the story with the active verbs. However, there were a considerable number of responses that were not specific enough.

So we decided to reformulate the question and specify that they need to give a numeric estimate about the duration of the conversation. The second experiment (Group 2) included the same two stories with the new question, but the results still did not confirm the hypothesis. Group 2 estimated that it took 37.6 minutes for the first conversation and 34.1 minutes for the second conversation to finish. The analysis thus showed that the results did not show a statistically significant difference in the two mean test scores of the two sample groups.

There may be several reasons why this is so. Methodologically speaking, it is possible that the story itself was too closely connected to an everyday activity of ours. Maybe our story was not structured in a way where the participants would get an impression that the person from the story accomplished many things because the boy was on the phone during the whole time of the story, which is actually something that gives the participants something to hold on to and to which they can relate. Maybe they thought of how long it would take them to finish a conversation like that and answered accordingly. Another possible explanation is that verbs we used did not tap into the domain of space in a way that would cause the activation of the TIME IS MOTION metaphor. Given that the participants had as much time as they wanted to answer the questions, they may have specifically looked for time-related clues in the text, using conscious rather than unconscious processing. One way to overcome these issues would be to use a different method, such as priming, and try to relate the experiment to a smaller chunk of text where more variables could be controlled.

If the verbs used in the story do not tap into the TIME IS MOTION metaphor for whatever reason, it is possible to explain the results of the study by invoking the experience of *protracted duration* and *temporal compression* (Evans 2004, 18) proposed by Michael Flaherty.

Michael Flaherty is a social psychologist who believes that *protracted duration* stands for the experience that temporality proceeds more slowly than usual. He goes on to say that these experiences which enable a higher density of information processing include: suffering and intense emotions, violence and danger, waiting and boredom, concentration and meditation, and shock and novelty. His reasoning is that if there is not a great deal of information that needs processing, not a lot of memory is required to store this new information, therefore we concentrate on duration and experience as though it is more protracted (Evans 2004, 20). We believe this may be the case with our participants. In the first story, there was a lower density of

information since our protagonist was sitting through the whole conversation and not a lot of memory space was required to store the information received, so the participants "felt" the experience of protracted duration, i.e. that time was moving more slowly.

On the other hand, *temporal compression* for Michael Flaherty would mean the opposite, as stated by Evans (2004, 20): the experiences that produce a "lower density of information processing and [...] in which time appears to 'pass more quickly' (temporal compression), include those which involve *routine complexity"*. Evans gives Flaherty's example of the daily drive to work. This view would go hand in hand with our second story and the participant's answers that the conversation in the second story was shorter than the one from the first story. The idea behind it is that in the second story we used verbs of motion which meant that the participants had to focus on different changes in motion in the story, the information which had to be processed and took up memory space so the participants were not able to concentrate on duration and in conclusion said that the conversation in the second story was shorter.

Evans explains the phenomena of protracted duration and temporal compression a bit further. Like we said, temporal compression is the phenomenon in which "temporal experience is felt to be proceeding 'more quickly' than usual" and protracted duration is the phenomenon in which temporal experience "appears to be proceeding 'more slowly' than usual" (Evans 2004, 115). Examples such as *Time flies (by) when you're having fun.* and *Time crawls (by) when you're bored.* portray the use of temporal compression and protracted duration respectively. We are very familiar with the feeling of time moving more 'quickly' or more 'slowly', that is often the case of students in a class waiting for it to be over and looking at the clock every two minutes thinking that, by that time, ten minutes must have passed. Temporal compression is best represented when one is at a party, having fun and does not realize that he/she has been there for hours rather than minutes.

These two phenomena deviate from what is normal, that is from our normal experience of time and relate to the experience of duration which is abnormal, i.e. they deviate from what Flaherty calls *synchronicity* (Evans 2004, 116). For him, synchronicity is "a normative experience against which durational experience can be judged as abnormal" (Evans 2004, 19). When it comes to protracted duration, Flaherty gives two examples which he terms 'empty' intervals and 'full' intervals. 'Empty' intervals is, for example, experienced while one is waiting

for an appointment with nothing to do, while 'full' interval is, for example, a near-death experience. In both of these situations "more of the stimulus array is being consciously attended to, hence there is a greater awareness of situation and self" (Evans 2004, 118).

On the other side, temporal compression includes examples such as an uneventful and routine drive to work in which the situations are characterized by routine complexity and therefore the journey from home to work might be experienced as if it has gone by very quickly. Evans states that "the motivation for elaborating 'protracted duration' and 'temporal compression' […] is the experiential correlation between our relative ability to attend to details of objects depending on the nature or manner of the motion they are undergoing" (Evans 2004, 118). So if an object is moving past us very slowly this gives us a chance to pay attention to every detail, but if an object is moving past us quickly, we do not have the time to examine it in detail. This means that protracted duration results from a greater attention to the perceptual stimulus array and temporal compression results from less attention to the perceptual stimulus array. What this means is that protracted duration is connected to the kind of motion which enables us to pay more attention to the details of an object, while temporal compression is connected to the kind of motion which is rapid, stealthy in nature, scarcely perceptible and in which we cannot pay attention to details. This correlates with the results of our research in which the participants said that the conversation in which our protagonist was sitting took longer than in the one where he was walking. One explanation would be that the participants were more aware of the protagonist in the story in which he was sitting on a bench because there was no movement and they could pay attention to every detail of the story and the plot. On the other side, in the story in which the protagonist was moving, they had to pay attention to what was going on (he was walking, sighing, kicking a fallen leaf, passing by a bag on the ground) and therefore were not paying so much attention to time.

5. Conclusion

The aim of this paper was to present the metaphor TIME IS MOTION and the research conducted in order to see whether the hypothesis that more motion equals more time will be justified. The research was conducted in collaboration with the Croatian Institute of Language and Linguistics. There were two experiments conducted on the students at Faculty of Humanities

and Social Sciences: the first group consisted of students of English language and French language and the second group consisted of students of Psychology. The first research was conducted on 100 participants and the second one on 72 participants. From the first research, a total of 82 answers were taken into account and from the second research only one was excluded.

Our initial hypothesis was not attested and the reason we got these results might result in the phenomena of protracted duration and temporal compression. These two terms would explain why the participants allocated more time to the conversation from the first story in which our protagonist was primarily static, whereas they allocated less time to the protagonist from the second story that was primarily active and moving. The phenomenon of protracted duration states that if there is not much information that needs processing, we do not have to store a lot of information in our memory storage and we can focus more on duration and experience it as protracted. On the other hand, temporal compression is the phenomenon that is related to motion events which refer to a rapid motion, therefore requiring more space in memory storage and resulting in paying less attention to the perceptual stimulus array.

One confounding factor is the use of verbs in the stories. Although we used state verbs in the first story and verbs of motion in the second story, there are other markers that need to be considered when talking about relations and verbs – the bounding of the verbs and their homogeneity or heterogeneity. Tabakowska presented these characteristics in her book and it would be interesting to go through the stories again, having in mind the meaning of each verb and what it represents, change the stories accordingly and conduct another research to see if protracted duration and temporal compression would persist.

6. References

Boroditsky, Lera. 1999. *Metaphoric structuring: understanding time through spatial metaphors*. Stanford University. Stanford.

Evans, Vyvyan. 2004. *The Structure of Time: Language, meaning and temporal cognition*. John Benjamins Publishing Company. Amsterdam/Philadelphia.

Explorable.com (Jul 20, 2009). Student's T-Test (II). Retrieved May 09, 2016 from Explorable.com: https://explorable.com/students-t-test-2

Gentner, D., Imai, M. and Boroditsky, L. 2002. "As time goes by: Evidence for two systems in processing space → time metaphors." In *Language and cognitive processes*. Evanston: Psychology Press Ltd.

International Computer Science Institute. *MetaNet: A Multilingual Metaphor Repository*. University of Berkeley (USA): https://www.icsi.berkeley.edu/icsi/gazette/2012/05/metanet-project

Lakoff, G. and Johnson, M. 1980. *Metaphors We Live By*. The University of Chicago Press. Chicago and London.

Lakoff, G. and Johnson, M. 1999. *The Philosophy in the flesh: The Embodied Mind and Its Challenge to Western Thought*. Basic Books.

Martyn Shuttleworth (Feb 19, 2008). Student's T-Test. Retrieved May 08, 2016 from Explorable.com: https://explorable.com/students-t-test

MetaNet: An Overview. https://metanet.icsi.berkeley.edu/metanet/node/5

Stanojević, Mateusz-Milan. 2013. *KONCEPTUALNA METAFORA: Temeljni pojmovi, teorijski pristupi i metode*. Srednja Europa. Zagreb.

Štrkalj Despot, Kristina. Croatian Metaphor Repository. http://ihjj.hr/metafore/

Tabakowska, Elżbieta. 2005. *Gramatika i predočavanje: uvod u kognitivnu lingvistiku*. FF press. Zagreb.

Žic Fuchs, Milena. 1991. "Metafora kao odraz kulture." In *Prožimanje kultura i jezika,* edited by Yvonne Vrhovac and Marin Andrijašević. Zagreb: Hrvatsko društvo za primijenjenu lingvistiku.

APPENDIX 1

Story No. 1

Bio je ponedjeljak točno u podne. Škola je ovaj tjedan bila popodne. Umjesto da piše gomile zadaća koje su ga čekale pred kraj 8. razreda, Sven je sjedio na klupi na Jarunu. Nikako se nije mogao smiriti, pa je izašao na zrak iako je dan bio oblačan. Sjedio je i razmišljao o skorašnjem upisu u srednju školu. Nije mogao reći da se ne raduje tome, no svejedno, postojale su stvari koje su ga mučile. Pomislio je kako bi najbolje bilo da nazove nekoga od svojih prijatelja s kojima bi mogao iskreno razgovarati o tome. Odlučio je da će nazvati Marina. Marin se pred kraj osmog razreda nije uznemiravao zbog odluke o upisu u srednju školu i rastanka s prijateljima iz razreda. Sven se malo nagnuo u desnu stranu kako bi uhvatio sunce koje je izvirivalo iza oblaka. Izvadio je mobitel iz džepa. Sjedeći je prebirao po mobitelu i lako pronašao Marinov broj. Ok, samo da obriše zaslon da vidi je li odabrao dobar broj. Jest. Mobitel je počeo zvoniti.

- Bok.

- Bok.

- Imaš malo vremena? Pita Sven udahnuvši.

- Pišem glupu zadaću, ali imam. Što je?

Sven je samo uzdahnuo.

- Ej, što ti je? Zvučiš nekako snužđeno.

- Ma… - ponovio je Sven i prebacio nogu preko noge – malo i jesam. Sjedim na klupi ispred naše zgrade i malo brinem oko nečega pa sam to htio podijeliti s tobom.

- Što je bilo? O čemu to pričaš? – čuo se zabrinut glas s druge strane.

Sven je i dalje sjedio, povremeno uzdišući, a činilo se kao da će svaki čas leći na klupu pod sobom.

- Sve ovo s krajem osnovne mi je tako čudno..

U detalje mu je prepričao što se sve može promijeniti odlaskom u novu školu. Pričao mu je o lijepim stvarima koje očekuje, ali i o onima s kojima će se prvi puta susresti, prijateljima koje će viđati samo vikendom i na treninzima, ali ne više i u školskom klupama. Uzeo je list koji je sletio kraj njega na klupu i samo ga spustio na svoje koljeno.

- Joj, Sven, zvučiš tako zbunjeno! Evo, sjeti se da ćeš napokon moći igrati rukomet u srednjoškolskoj ligi! Pa to je sjajno, zar ne, toliko dugo to čekaš!

- Istina. I stvarno se radujem tome. Znam da će u razredu biti ljudi s kojima se već sada družim, samo... Evo, misliš li da ću imati vremena i dalje se baviti fotografiranjem?

- Sven, pa naravno da hoćeš! Gledaj, siguran sam da će sve biti dobro. Sigurno si mozgao o istim stvarima prije polaska u 5. razred, a onda je sve ispalo super! Sjeti se i našeg dogovora da ćemo se svi skupljati barem jednom mjesečno dok si ne dosadimo – rekao je Marin kroz smijeh.

Marin je postavljao potpitanja, a Sven je govorio, povremeno tek promijenivši pozu. Na kraju, ležeći na toj istoj klupi začuo je Marinov glas:

- Ostani sjediti na klupi, a ja ću sada doći do tebe.

Sven je tri puta duboko udahnuo, izgledajući kao da je doma na kauču. Konačno je odlijepio leđa od naslona klupe i ipak mu rekao:

- OK, čekam te tu dolje.

Prekinuo je vezu, gurnuo telefon u stražnji džep hlača i dalje osjećajući tvrdu klupu ispod sebe, razmišljajući kako je Marin oduvijek bolje znao procijeniti situaciju i kako će vjerojatno sve ipak biti dobro. Već se osjećao bolje, a učinilo mu se i da se sunce upravo malo više pokazalo.

Story No. 2
Bio je ponedjeljak točno u podne. Škola je ovaj tjedan bila popodne. Umjesto da piše gomile zadaća koje su ga čekale pred kraj 8. razreda, Sven je šetao po Jarunu. Nikako se nije mogao smiriti, pa je izašao na zrak iako je dan bio oblačan. Hodao je i razmišljao o skorašnjem upisu u srednju školu. Nije mogao reći da se ne raduje tome, no svejedno, postojale su stvari koje su ga mučile. Pomislio je kako bi najbolje bilo da nazove nekoga od svojih prijatelja s kojima bi mogao iskreno razgovarati o tome. Odlučio je da će nazvati Marina. Marin se pred kraj osmog razreda nije uznemiravao zbog odluke o upisu u srednju školu i rastanka s prijateljima iz razreda. Sven je malo ubrzao korak kako bi uhvatio sunce koje je izvirivalo iza oblaka. Izvadio je mobitel iz džepa. Hodajući je prebirao po mobitelu i lako pronašao Marinov broj. Ok, samo da obriše zaslon da vidi je li odabrao dobar broj. Jest. Mobitel je počeo zvoniti.

- Bok.

- Bok.

- Imaš malo vremena? Pita Sven udahnuvši.

- Pišem glupu zadaću, ali imam. Što je?

Sven je samo uzdahnuo.

- Ej, što ti je? Zvučiš nekako snuždeno.

- Ma… - ponovio je Sven i zaobišao bačenu vrećicu na pločniku – malo i jesam. Šetam pored jarunskog jezera i malo brinem oko nečega pa sam to htio podijeliti s tobom.

- Što je bilo? O čemu to pričaš? – čuo se zabrinut glas s druge strane.

Sven je i dalje koračao, povremeno uzdišući, a činilo se kao da će svaki čas potrčati.

- Sve ovo s krajem osnovne mi je tako čudno..

U detalje mu je prepričao što se sve može promijeniti odlaskom u novu školu. Pričao mu je o lijepim stvarima koje očekuje, ali i o onima s kojima će se prvi puta susresti, prijateljima koje će viđati samo vikendom i na treninzima, ali ne više i u školskom klupama. U prolazu je nogom gurnuo list koji mu se našao na putu.

- Joj, Sven, zvučiš tako zbunjeno! Evo, sjeti se da ćeš napokon moći igrati rukomet u srednjoškolskoj ligi! Pa to je sjajno, zar ne, toliko dugo to čekaš!

- Istina. I stvarno se radujem tome. Znam da će u razredu biti ljudi s kojima se već sada družim, samo... Evo, misliš li da ću imati vremena i dalje se baviti fotografiranjem?

- Sven, pa naravno da hoćeš! Gledaj, siguran sam da će sve biti dobro. Sigurno si mozgao o istim stvarima prije polaska u 5. razred, a onda je sve ispalo super! Sjeti se i našeg dogovora da ćemo se svi skupljati barem jednom mjesečno dok si ne dosadimo – rekao je Marin kroz smijeh.

Marin je postavljao potpitanja, a Sven je govorio, povremeno ubrzavajući korak. Na kraju, već zadihan od žustrog hodanja, začuo je Marinov glas:

- Reci mi gdje si, a ja ću sada doći do tebe.

Sven je tri puta duboko udahnuo, skidajući jaknu jer mu je postalo pretoplo. Konačno je pogledom prošetao po okolici i ipak mu rekao:

- OK, čekat ću te kod kioska.

Prekinuo je vezu, gurnuo telefon u stražnji džep hlača i dalje osjećajući strujanje zraka po svome licu, razmišljajući kako je Marin oduvijek bolje znao procijeniti situaciju i kako će vjerojatno sve ipak biti dobro. Već se osjećao bolje, a učinilo mu se i da se sunce upravo malo više pokazalo.

APPENDIX 2

Question used in the first study:

- Ako je radnja priče počela u podne, u koliko točno je završila (odnosno, kada je završio telefonski razgovor između Marina i Svena)?
- If the story began at noon, at what time did it end (i.e. at what time did the telephone conversation between Marin and Sven end)?

Question used in the second study:

- Sljedeće pitanje može Vam se učiniti teškom, ali Vas svejedno molimo da razmislite i pokušate što preciznije dati odgovor. Ako je radnja počela u podne, **u koliko točno sati** je završila (odnosno, kada je završio telefonski razgovor između Marina i Svena)?
- Next question might seem difficult, but we ask you to think it through and try to give a precise answer. If the story began at noon, what would be **the exact time** it ended (i.e. when did the telephone conversation between Marin and Sven end)?